

**FAA INTERNATIONAL TRAINING CATALOG**





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*AS NEEDED BASIS*

**INTERNATIONAL LIAISON AND STUDENT SERVICE BRANCH  
FEDERAL AVIATION ADMINISTRATION ACADEMY**

**INTERNATIONAL ASSISTANCE MANAGEMENT BRANCH  
OFFICE OF INTERNATIONAL AVIATION**





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# INTRODUCTION

## FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration (FAA) is responsible for promoting and regulating United States (U. S.) civil aviation to assure safe and orderly growth. Working toward a goal of improved worldwide aviation safety, the FAA is also dedicated to helping other countries develop their own capabilities in aviation transportation. The variety of U. S. aviation technology and its diverse applications by the FAA create unique opportunities for civil aviation authorities throughout the world to benefit from FAA experience.

Technical assistance is made available to other countries in many ways by the FAA. One of the major areas of the FAA technical assistance program is the aviation training provided each year at the FAA Academy, with selected companies in the aviation industry, at academic institutions, and other FAA facilities. Formal training outside the Academy encompasses a large spectrum of colleges, universities, vocational schools, seminars, and specialized training institutions as well as the various facets of pilot training.

## THE FAA ACADEMY

The FAA Academy is the agency's principal source of aviation technical training. Opened in 1946 to provide needed training for the FAA's own employees, the Academy today conducts training courses for several thousand employees each year.

Over 9,200 international participants from more than 150 foreign countries have also been trained at the Academy.

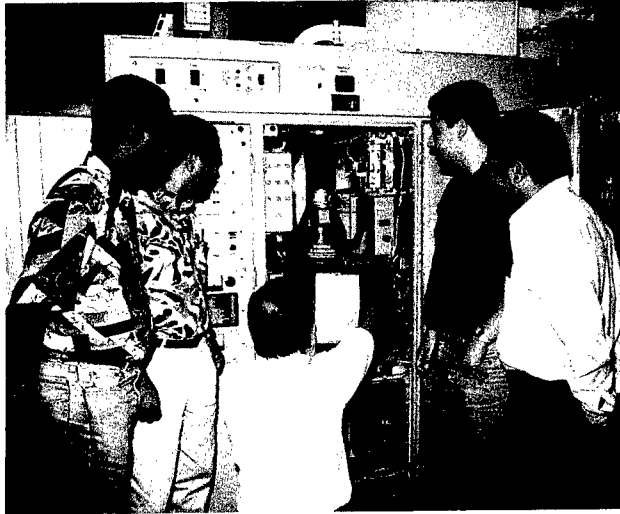
The Academy is divided into six training divisions and one administrative division.

- Air Traffic Division
- Airway Facilities Division
- Airports and Logistics Division
- Aviation Security Training Division
- Faculty Development and Certification Division
- Program and Project Management Division
- Regulatory Standards and Compliance Division



Within the various divisions, training is conducted in such areas as air traffic control, maintenance of navigation and communication facilities, inspection of air carrier and general operations, airport planning and design, and instructor training.

The function of each training division and its respective courses and classes for international participants will be explained on the following pages.



### **COURSES AND CLASSES FOR INTERNATIONAL PARTICIPANTS**

Most of the courses available at the FAA Academy are designed to meet the FAA's own needs for training. There are, however, a smaller number of courses which have been designed and are conducted each year for international participants only (see page 72).

These are courses and classes for which there has been a continuing request by other governments to the extent that the FAA has tailored course content and training times specially to meet these international training needs. All enrollment spaces in these classes have been reserved for use by international participants.

Most of the FAA Academy's training courses are designed to address the needs of broad-based audiences engaged in the maintenance, administration, and management of a variety of civil aviation systems. However, some countries have specific problems which require specific training solutions. For these customers, the Academy can design, develop, and deliver unique training products tailored specifically to treat specifically stated requirements. Such training normally requires a pre-design, in-country, customer-funded assessment of the existing operational/training systems. This assessment is then followed by a report of findings and a list of recommended training solutions.

This catalog outlines many FAA Academy resident courses and classes available for international participants. It also contains descriptions of correspondence study (non-resident) courses in the management training and technical training areas. Descriptions of other regular FAA resident study courses are contained in the FAA Training Catalog which is available by contacting the U.S. Embassy in each country or by writing to the FAA office listed under *Admission*.

With some exceptions international participants are, of course, welcome in other FAA classes. They may be placed in the same classes with regular FAA employees on a space available basis. Priority for enrollment in regular FAA courses must be given to meeting the agency's own training needs.



## ADMISSION

The FAA Academy and/or management training of international participants is performed through reimbursable agreements. Governments wishing to arrange for FAA training may submit their requests through the U. S. Embassy in their country. Applicants for training and financing can also be arranged through the Agency for International Development (AID) or through the International Civil Aviation Organization (ICAO). Requests for training should specify the desired dates as broadly as possible and provide the participant's name, biodata, and English language capabilities.

Admission to any FAA Academy course is on a first-come, first-serve basis.

For information on enrollment, course costs, training agreements required, and scheduling of courses, please write to:

Federal Aviation Administration  
International Assistance Division  
Office of International Aviation  
800 Independence Avenue, SW.  
Washington, DC 20591

Facsimile: (202) 267-5306

Telex: 892562, ATTN: AIA-218

All associated costs of training - such as travel, living allowances, medical insurance, and other personal incidental expenses - must be paid by the participants or their sponsoring government or international organization.

## LANGUAGE REQUIREMENTS

All classes are taught in English. An ability to fluently speak, read, and understand technical subject matter in the English language is a prerequisite for admission. When international participants need a better command of English before beginning their aviation training, arrangements can be made with the FAA for enrollment in English language training at a U. S. college or university.

## COURSE PREREQUISITES

Some courses listed represent advanced training in a given subject area. Successful completion of these advanced courses requires appropriate background knowledge prior to enrollment. This required background is generally indicated by stating one or more FAA courses that would have been completed prior to enrollment. These prerequisite FAA course requirements may be waived for international applicants who have completed equivalent training elsewhere or whose work experience can be demonstrated to have provided them with the equivalent background knowledge.



### **COURSE DURATION**

Course durations are given for planning purposes and will be confirmed at time of enrollment.

### **LOCATION**

The FAA Academy is part of the Mike Monroney Aeronautical Center, located in Oklahoma City, Oklahoma. Near the center of the U. S., Oklahoma City is a sprawling urban area of about 800,000 population. The climate is generally mild and dry with excellent year round flying weather. Seasonal variations can generate temperatures above 100°F (38°C) in the summer and below 32°F (0°C) in winter.

### **HOUSING**

A wide range of apartments and motels are available to participants attending the FAA Academy in the Oklahoma City area. FAA has negotiated with apartment owners to allow for short term leases for apartments containing furniture, dishes, cooking utensils, linens, and a television set. All housing is at the participants' expense.

FAA provides buses to transport participants from certain designated apartments and motels to and from classes at the Aeronautical Center.

### **INTERNATIONAL LIAISON OFFICE FAA ACADEMY**

International participants coming to the FAA Academy in Oklahoma City for training will report to the International Liaison and Student Services Office. The office is located in Room 166 of the Headquarters Building at the Mike Monroney Aeronautical Center, 6500 South MacArthur Boulevard, Oklahoma City, Oklahoma.

This office is available to assist participants with coordination of their training program, housing, and any personal problems they may have while training at the Academy. They will also make arrangements for international participants to become acquainted with a friendship family from the local area.



# TRANSPORTATION SAFETY INSTITUTE







# TRANSPORTATION SAFETY

## INSTITUTE COURSES

Under the executive direction and sponsorship of the Research and Special Programs Administration (RSPA), the Transportation Safety Institute (TSI) is the primary element charged with providing training and technical assistance in transportation safety for all operating administrations of the DOT. To further promote safety, the Institute also conducts training for other federal agencies. It is one of the nation's foremost training institutes for accident investigation and regulatory training in all areas of transportation related safety.

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**00001**

**AIRCRAFT ACCIDENT  
INVESTIGATION  
PART 1, INTRODUCTION**

**(3 1/2 DAYS)**

This introductory course is designed to train investigators in the regulations, forms, and management of all resources (personnel and funds) involved in an accident/incident investigation. Subject areas include accident photography, witness interviewing, and a basic introduction to field investigations and human factors causes. The course involves a photography field trip to TSI's remote crash site.

*Prerequisite:* None.

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**00002**

**AIRCRAFT ACCIDENT  
INVESTIGATION, PART 2,  
TECHNIQUES AND PROCEDURES**

**(1 WEEK, 3 1/2 DAYS)**

This course is designed to train participants the techniques and procedures of field investigations of accidents and incidents. This course is the technical portion of an investigator's fixed-wing accident investigation training and is considered vital for inspectors who will assume duties of the investigator-in-charge at an accident site. The course will relate operational, airworthiness, crashworthiness, human factors, aircraft performance, and specific design deficiencies to accident causes. Other subject areas include powerplant and fire investigations, structures and metallurgy considerations, composite materials, maintenance related accidents, and an introduction to helicopter investigations.

*Prerequisite:* None.

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00007

**ROTORCRAFT SAFETY AND  
ACCIDENT INVESTIGATION**

**(1 WEEK, 2 DAYS)**

This course is designed for aviation standards personnel responsible for investigation of helicopter accidents. This hardware oriented rotorcraft safety and investigation course teaches airworthiness operational problems uncovered during accident investigations. The material is designed to meet the technical needs of aviation standards inspectors and engineering personnel in investigation of helicopter accidents and incidents.

Participants will study the latest techniques and procedures in helicopter engine and transmission teardown to determine modes of failure. Subject areas include rotorcraft operation, performance, airworthiness, crashworthiness, human factors, and specific design deficiencies. Other subject areas include fire investigations, systems/subsystem malfunctions, structural considerations, and metallurgical failure analysis. Examination of helicopter records, and the service difficulty reporting system are included. The course consists of hands-on training with crash damaged parts, workshops, and field trips.

**Prerequisites:** 00002, Aircraft Accident Investigation, Part 2, Techniques and Procedures. Participants must be civil or military foreign government investigators.

**NOTE:** Course is conducted at Bell Helicopter Training and Development Center (Hurst, Texas).

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00008

**HUMAN FACTORS IN AIRCRAFT  
ACCIDENT INVESTIGATION**

**(3 1/2 DAYS)**

This course is designed for aviation safety inspectors, accident prevention program managers, and investigation support personnel (air traffic evaluation staff, certification engineers, medical investigators). The course examines aircraft accidents/incidents from the standpoint of human error. Since nearly all accidents involve human errors and/or omissions, human element is examined for direct and contributing factors in recent investigations. Human performance in flight operations; aircraft maintenance; air traffic control; government regulators; corporate executives; Part 121, Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft; Part 135, Air Taxi Operators and Commercial Operators; and Part 91, General Operating and Flight Rules, operators decisions are scrutinized for cause factors. The course is the behavior and judgement portion of an investigator's training leading to journeyman investigator status.

**Prerequisite:** 00001, Aircraft Accident Investigation, Part 1, Introduction.

# FAA CENTER FOR MANAGEMENT DEVELOPMENT

## RESIDENT COURSES





# FAA CENTER FOR MANAGEMENT DEVELOPMENT

The FAA Center for Management Development (CMD) offers supervisory/management training. The curricula consists of resident and nonresident courses. The resident training is designed to give coherency and standardization to the teaching of management principles.

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**01306**

**MANAGING CHANGE**

**(3 1/2 DAYS)**

The course is designed for first or second level supervisors and managers. The purpose is to challenge the participants to recognize the need for change, and the opportunities inherent in change. Participants are provided with a phased approach to preparing their personnel for change and effectively managing the implementation of the change. Thorough familiarity with the National Airspace System (NAS) Plan is a by-product of this course. Subject areas include problem-solving and decision making, overcoming resistance to change, motivation theories, planning for change, and the manager's readiness for change.

*Prerequisite:* None

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**01501**

**CONSTRUCTIVE  
COMMUNICATIONS**

**(1 WEEK, 2 1/2 DAYS)**

This course is designed for participants whose jobs require regular and frequent interaction with others. The intent of this course is to provide new skills and/or enhance existing skills in meeting, analyzing, understanding, and influencing people through improved human relations and constructive communications skills. Subject areas include human relations, learning and personality, awareness of self and others, motivating self and others, preventing and resolving conflict, and handling stress. Approximately 50 percent of the course is devoted to major workshops where the principles, concepts and skills of human relations, and communications are brought together and practiced. Individually, and as members of a team, participants develop and conduct presentations, interviews, and discussions. The ultimate purpose of the course is to increase the effectiveness of participants as they interact with others.

*Prerequisite:* None.

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**01524**

**STAFF WORK**

**(1 WEEK, 2 1/2 DAYS)**

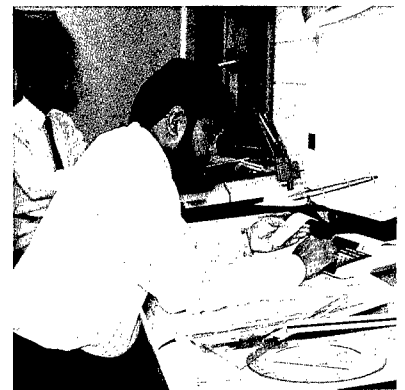
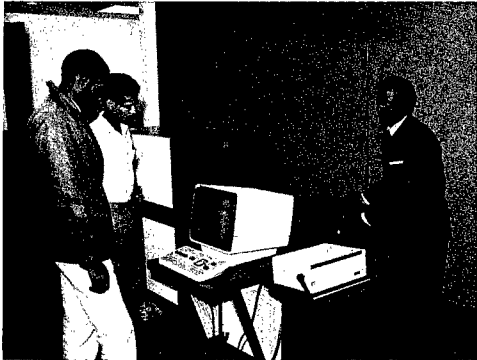
This course is designed for staff personnel. The purpose is to provide staff personnel with the knowledge and skills that will enable them to effectively support roles. Subject areas include staff and organizational relationships, effective writing and speaking, and problem solving. Major subdivisions of the course are roles and responsibilities, human factors, communications, planning and controlling work, data collection and presentation, and staff studies.

*Prerequisite:* None.





# THE FEDERAL AVIATION ADMINISTRATION (FAA) ACADEMY RESIDENT COURSES





# AIRPORTS AND LOGISTICS DIVISION

The Airports and Logistics Division of the FAA Academy conducts training primarily for personnel concerned with planning, development, and operation of civil aviation airports, as well as training in procurement and supply subjects. Airports training courses are conducted on a resident basis and include workshops and visits to airports, airport firefighting and rescue facilities, and professional testing laboratories as may be necessary to support the training objectives of the specific courses. These courses utilize FAA handbooks, orders, advisory circulars, and Federal Aviation Regulations, as well as industry guidelines. Airports training is based on the U. S. airports systems.

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**06005**

## **AIRPORT PAVEMENT DESIGN**

**(1 WEEK, 4 1/2 DAYS)**

This course is designed for pavement specialists, civil engineers, or technicians who have as a primary or secondary job function the review and approval of airport pavement design. Subject areas include evaluation of laboratory soil tests, reports, flexible pavement design methods, rigid pavement design methods, and pavement strengthening methods.

*Prerequisite:* None.

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**06019**

## **NAVIGATIONAL AIDS (NAVAIDS) AND LIGHTING**

**(4 1/2 DAYS)**

This course is designed for airport project managers/engineers, who provide assistance and advisory service for airport lighting and NAVAIDS projects. The course provides participants with the basic knowledge necessary to manage an Airports Improvement Program (AIP) project involving installation or relocation of airport lighting and NAVAIDS equipment. The course includes a review of basic electrical theory and the installation requirements of the various types of equipment normally encountered with an AIP project.

*Prerequisite:* None

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**06022**

## **AIRPORT MASTER PLANNING**

**(1 WEEK)**

This course is designed for personnel whose jobs require knowledge of airport master planning. Subject areas included are those stipulated in FAA Advisory Circular 150/5070-6 as being required items in a master plan. Emphasis will be on skills required in preparing the National Plan of Integrated Airport Service (NPIAS), preparing and reviewing master plans, and airport layout plans.

*Prerequisite:* None

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**06030**

## **AIRPORT CERTIFICATION**

**(1 WEEK)**

This course is designed for personnel who require a knowledge of FAA airports certification. Subject areas include the requirements of FAR 139, conducting of inspections by certification specialists, enforcement procedures, and participation of certification specialists in accident investigations.

*Prerequisite:* None.

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**06032**

**AIRPORT MANAGEMENT  
FOR INTERNATIONAL  
PARTICIPANTS**

**(6 WEEKS)**

**THIS COURSE IS DEDICATED TO  
INTERNATIONAL PARTICIPANTS**

This course is designed for international participants who have a need to deal effectively with various elements associated with the operation and management of an airport. Subject areas include airside safety, terminal and groundside operations, airport master planning, airport design, and airport financial considerations. At the conclusion of the training, participants will be expected to present and discuss a paper on a particular aspect of airport management.

**Prerequisite:** Applicants must be directly involved with the management and/or operation of an airport.

# **FACULTY DEVELOPMENT AND CERTIFICATION DIVISION**

In the Faculty Development and Certification Division of the FAA Academy, participants learn how to become effective instructors and to pass on their technical knowledge in facility training or in a training center such as the Academy. For civil aviation agencies in all nations, this kind of instructor training is a critical element in developing and maintaining an effective system. All equipment requires trained personnel to operate and maintain it, and the training of those personnel in turn requires the presence of qualified instructors. The FAA Academy offers courses in instructor training, on-the-job training techniques, curriculum development, instructional testing, and many other similar skills.

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**10502**

**INTERNATIONAL  
INSTRUCTOR TRAINING**

**(3 WEEKS, 2 DAYS)**

**THIS COURSE IS DEDICATED TO  
INTERNATIONAL PARTICIPANTS.**

**It is a mandatory prerequisite for  
Courses 10511, 10512, 10513 and  
10525.**

This course consists of formal classroom presentations and workshop sessions. Classroom presentations include factors that affect learning, basic teaching methods, development and utilization of training aids, lesson planning, achievement testing, and development of instructional objectives. Workshop sessions include lesson preparation, practice teaching, and training aid preparation. Each participant prepares and presents a 5-minute speech, a 30-minute verbal performance lesson, a 30-minute laboratory lesson, and a 50-minute technical lesson. Special emphasis is placed on practice teaching and the critiques of instruction.

***Prerequisite:*** None.

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**10504**

**ON-THE-JOB TRAINING (OJT)  
TECHNIQUES**

**(1 WEEK)**

**It should be noted that  
Courses 10502 and 10504  
cover some of the same topics.**

This course is designed for supervisors, specialists, technicians, or others who are assigned OJT responsibilities. The course consists of formal classroom presentations and workshop sessions. Classroom sessions include developing instructional objectives, identifying training needs and training requirements, planning and conducting OJT training, lesson planning, learning and communicating, appraisal of training progress, and record keeping. Workshop sessions include lesson preparation and presentation of demonstrations. Each participant prepares and presents two 15-minute demonstration/performance lessons. Emphasis is placed on techniques of demonstration/performance activities and critique of other instructors.

***Prerequisite:*** None.

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**10511**

**ACADEMY INSTRUCTOR  
TRAINING (ADVANCED)**

**(1 WEEK)**

This course is designed for instructors who have at least one year of teaching experience. The course consists of discussions, team activities, case study, and role play. Subject areas include creative training techniques, managing media, managing the learning environment, cultural diversity, team interaction, counseling, and improving instructional effectiveness. The course is presented through formal classroom, laboratory, and workshop sessions.

***Prerequisite:*** 10502, International Instructor Training.

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**10512**

**CURRICULUM DEVELOPMENT**

**(1 WEEK, 1 DAY)**

This course is designed for instructors who have at least one year of teaching experience and are assigned to course development/revision duties. The course consists of approximately 48 hours of instruction, including classroom/workshop activities which emphasize the analysis, design, development, and validation of training. Workshop activities are designed to develop skills in assessing training needs, analyzing job tasks, developing training objectives, test items, lesson plans, training material, visual aids, selecting instructional methods and media, and validating and evaluating training.

***Prerequisite:*** 10502, International Instructor Training.

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**10513**

**INSTRUCTIONAL TESTING**

**(1 WEEK, 2 DAYS)**

This course is designed for participants who are, or soon will be, responsible for managing, developing, and/or administering testing programs. The course consists of approximately 31 hours of classroom instruction and 25 hours of workshop exercises. Classroom instruction includes guidelines in developing a criterion-referenced testing program, analyzing tests and test items, and administering tests. Workshop sessions include development of both written and performance tests and related test materials, item analysis, and whole test analysis. Each participant's work will be critiqued by the instructors and other participants.

***Prerequisite:*** 10502, International Instructor Training.

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**10525**

**DESIGNING PROGRAMED  
INSTRUCTION**

**(2 WEEKS)**

This course is designed for instructors assigned to courseware development.

The course is presented in a self-paced mode, but with the guidance, assistance, and evaluation of an education specialist. The course requires practicing the methods and techniques of programed instruction by developing lesson plans and a variety of self-instructional courseware. In the process of development, the participant devises learning objectives, teaching-learning activities, tests, and validation plans.

Participants are also acquainted with the computer-based instruction (CBI) process by having mastered two of three lessons on developing CBI lessons that they are required to complete on the computer.

***Prerequisite:*** 10502, International Instructor Training.





# REGULATORY STANDARDS AND COMPLIANCE DIVISION

The Regulatory Standards and Compliance Division of the FAA Academy is responsible for providing training to pilots, inspectors, engineers, and technicians who are charged with insuring airworthiness of aircraft, surveillance of aircraft operations, certification of airmen and air agencies, in-flight evaluation of air navigation facilities, and establishment of en route and terminal flight procedures. Using both simulators and real aircraft, participants learn to be inspectors of operations, maintenance, avionics, or manufacturing.

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12022

**ORAL COMMUNICATION AND  
CONFLICT MANAGEMENT  
SKILLS FOR AVIATION SAFETY  
INSPECTORS (ASI)**

**(4 DAYS)**

This course is designed to provide ASI, in all specialties, with the skills needed to communicate and manage conflict effectively with individuals and organizational units within and outside of the FAA. The module includes training in such areas as giving and receiving feedback, active listening skills, one-way and two-way communication practices, negotiating skills, and constructive conflict methods.

*Prerequisite:* None.

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12023

**WRITING SKILLS FOR AVIATION  
SAFETY INSPECTORS (ASI)**

**(3 DAYS)**

This course is designed to provide ASI, in all specialties, with the skills needed to write letters, memoranda, and reports associated with the position requirements. The training will include such topics as overcoming problems in grammar and punctuation, using the active voice, and writing for clarity. Vocabulary and examples used in the instruction will be tailored to safety inspector job situations.

*Prerequisite:* None.

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20702

**GENERAL AVIATION OPERATIONS  
INDOCTRINATION REVISED**

**(3 WEEKS, 3 DAYS)**

This course is designed to provide indoctrination training for newly assigned general aviation safety inspectors (operations) in the job functions required by their specialty. The course includes 12 hours of standardization flight training (6 hours light single engine airplanes and 6 hours in light twin engine airplanes).

*Prerequisite:* None.

*Other Requirements:* The participant must hold at least the following certificates and ratings prior to enrollment:

- (a) Airline transport pilot certificate with airplane single and multiengine land ratings, or commercial pilot certificate with airplane single and multiengine land ratings, instrument airplane rating.
- (b) A valid flight instructor certificate with airplane single and multiengine and instrument airplane ratings.
- (c) A current first-or second-class Airman Medical Certificate.

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20724

**AIRSPACE SYSTEMS  
INSPECTION PILOT (BASIC)  
NONFLYING**

**(4 WEEKS, 1 DAY)**

**THIS COURSE IS DEDICATED TO  
INTERNATIONAL PARTICIPANTS**

This course is designed for Airspace Systems Inspection Pilots during their first year of employment. The course includes basic procedures as outlined in the U. S. Standard Flight Inspection Manual for the airborne check of navigational aids. This is a nonflying course.

**Prerequisite:** None.

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20725

**AIRSPACE SYSTEMS  
INSPECTION TECHNICIAN  
(BASIC) NONFLYING**

**(4 WEEKS, 1 DAY)**

**THIS COURSE IS DEDICATED TO  
INTERNATIONAL PARTICIPANTS**

This course is designed for Airspace Systems Inspection Technicians during their first year of employment. The course includes basic procedures as outlined in the U. S. Standard Flight Inspection Manual for the airborne check of navigational aids. This is a nonflying course.

**Prerequisite:** None.

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21100

**PILOT FLIGHT TESTING  
PROCEDURES**

**(1 WEEK, 4 DAYS)**

This course is designed for general operations inspectors/specialists and includes 7 1/2 hours of airmen testing and evaluation flight training. Subject areas include pre-flight inspection, single, multiengine, and instrument flying maneuvers, job function requirements of conducting all types of flight tests, and psychology of teaching.

**Prerequisite:** 20702, General Aviation Operations Indoctrination.

**Other Requirements:** The participant must hold at least the following certificates and ratings prior to enrollment:

(a) Commercial pilot certificate with instrument airplane single and multiengine land ratings.

(b) A valid flight instructor certificate with instrument airplane single and multiengine ratings.

(c) A current first-or second-class Airman Medical Certificate.

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21202

**INSPECTOR PILOT  
TURBOJET EVALUATION**

**(1 WEEK, 3 DAYS)**

This course is designed to evaluate the pilot ability of operations inspectors who do not have a turbojet rating. The course includes 18 hours of flight time (nine pilot, nine observer). Subject areas include aircraft systems, weight and balance, operating limitations, maneuvers, performance, normal operating procedures, flight management systems, and electronic flight instrumentation system.

***Prerequisite:*** None.

***Other Requirements:*** The participant must hold at least the following certificates and ratings prior to enrollment:

(a) Airline transport pilot (ATP) certificate with airplane multiengine land rating, or commercial pilot certificate with airplane multiengine land and instrument airplane ratings and meet the flight time requirements for an ATP certificate.

(b) A current first-or second-class Airman Medical Certificate.

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21406

**AIRWORTHINESS INSPECTOR  
COCKPIT EN ROUTE  
INSPECTION**

**(4 DAYS)**

This course is designed for airworthiness (maintenance/avionics) inspectors who are responsible for surveillance of air carrier maintenance programs. The course consists of classroom instruction, discussions, and laboratory exercises. Subject areas include preparation for an en route inspection, evaluation of pre-flight activities, 5-day grounding, evaluation of ground handling, in-flight performance of aircraft systems and flight crew, and documentation of inspection findings.

***Prerequisites:*** None.

***Other Requirements:*** The participant must have FAA Form 110A, Aviation Safety Inspector Credential.

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21506

**ACCIDENT PREVENTION  
TECHNIQUES AND PROCEDURES**

**(2 WEEKS)**

The course is designed for accident prevention program managers, regional accident prevention program managers, and supervisors. The course consists of classroom instruction, laboratory exercises, and work projects. Subject areas include national guidelines, records and statistical systems, developing seminars, working with news media, and appointing counselors. The course will prepare the participant to better perform the job function of an accident prevention program manager.

***Prerequisite:*** None.

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21607

**AIR CARRIER OPERATIONS  
INDOCTRINATION**

**(2 WEEKS, 3 DAYS)**

This course is designed to provide indoctrination training for newly assigned aviation safety inspectors (operations) for the job tasks required of this specialty. The course consists of both classroom and laboratory instruction in inspector job tasks and physiological training. The subject areas are those related to the overall aviation standards and air carrier mission.

*Prerequisite:* None.

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21609

**AGRICULTURAL AIRCRAFT  
OPERATOR CERTIFICATION AND  
INSPECTION**

**(1 WEEK, 2 DAYS)**

This course is designed for general operations or airworthiness inspectors/specialists. The course consists of classroom instruction, laboratory exercises, and work projects. The instruction, laboratory, and workshop projects will prepare the inspectors/specialist to perform agricultural aircraft operator certification and inspection job functions.

*Prerequisite:* None.

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21615

**INSTRUMENT EN ROUTE  
AND APPROACH DEVELOPMENT  
INTERNATIONAL**

**(5 WEEKS)**

**THIS COURSE IS DEDICATED TO  
INTERNATIONAL PARTICIPANTS**

This course is designed to acquaint international participants with the development criteria for airway and instrument approaches as prescribed by FAA Handbooks 8260.3 and 8260.19. The course consists of both classroom presentation of the criteria followed by laboratory exercises where the participants learn the application of this criteria reinforcing their learning and retention. Airspace matters are studied from the floor of controlled airspace of airways, to establishing terminal control zones, control zone extensions, and transition areas for arriving and departing aircraft.

*Prerequisite:* None.

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21618

**AIR CARRIER  
MAINTENANCE/ELECTRONICS  
INDOCTRINATION (ABBREVIATED)**

**(4 1/2 DAYS)**

This course is designed to transition training into the air carrier discipline for general aviation airworthiness (maintenance/avionics) inspectors. The course consists of classroom instruction, examinations, and practice exercises designed to enhance the inspector's ability to perform job functions with certification and surveillance of Federal Aviation Regulations Part 121, Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft, air carriers. Subject areas include maintenance manuals, required inspection items, continuing analysis/surveillance, program reliability and condition monitoring, mechanical reports/analysis, maintenance training program, maintenance facility and line station, operations specifications, minimum equipment list (MEL)/configuration defection list (CDL), log books/maintenance records, avionics, and certification of air carriers.

*Prerequisite:* 21603, General Aviation Airworthiness Advanced Indoctrination.

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21621

**AIR CARRIER OPERATIONS  
INSPECTOR JOB  
FUNCTIONS (RECURRENT)**

**(3 DAYS)**

This course is designed for aviation safety inspectors (operations) assigned duties with Part 121, Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft, air carriers. The course consists of 22 hours of classroom instruction. Subject areas include flight and duty time, training program, check airman, minimum equipment list, facility inspection, certification, operations specification, lower weather, simulator standards, performance, and cabin safety.

**Prerequisites:** 21607, Air Carrier Operations Indoctrination; or 21617, Air Carrier Operations Indoctrination (Abbreviated); and an aircraft type rating course completed.\*

**Other Requirements:** Employed as an air carrier safety inspector (operations) with at least 1 year practical working experience.

\*21617 has been discontinued; however, participants who have satisfactorily completed the course will be recognized as having completed two of the three prerequisites.

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21660

**AIRCRAFT CERTIFICATION  
INDOCTRINATION**

**(1 WEEK, 3 1/2 DAYS)**

This course is designed for newly assigned manufacturing inspectors, aerospace engineers, and flight test pilots. Subject areas include the FAA and aircraft certification service its mission and organization; the job functions and responsibilities of all aircraft certification job specialties and how they interrelate; the major programs and products of the aircraft certification service; the role of the aircraft certification offices and manufacturing inspection district offices in dealing with manufacturer/applicants, both domestic and foreign; the application of the Federal Aviation Regulations; and other policy guidance used by specialists in their job functions. The laboratory exercise consists of a hypothetical case study involving an supplementary type certification (STC) applicant and will allow the participants to apply the knowledge gained from the classroom study. This course teaches the responsibilities of the manufacturing inspectors, engineers, and flight test pilots in the FAA. Other courses in the aircraft certification curriculum address how and why the work is done.

**Prerequisite:** None.

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**21811**

**GENERAL AVIATION  
AIRCRAFT ALTERATIONS**

**(1 WEEK, 3 1/2 DAYS)**

This course is designed for airworthiness (maintenance/avionics) inspectors who are responsible for approving alterations and repairs of aircraft. The course consists of discussions, analysis, and application of alteration and repair problems. Subject areas include applicable references, alteration approval decisions and repair approval decisions in relation to aircraft weight and balance, structural strength, performance, powerplant operations, and flight characteristics. This course is designed to enhance inspector knowledge using interactive learning, task-oriented course content, and problem-solving approaches.

***Prerequisite:*** None.

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**21813**

**AIRCRAFT MAINTENANCE  
RELIABILITY PROGRAMS**

**(1 WEEK, 3 1/2 DAYS)**

This course is designed for airworthiness (maintenance/avionics) inspectors who are responsible for evaluation and surveillance of aircraft maintenance reliability or condition-monitoring maintenance programs. Subject areas include organizing data and analysis techniques, control charts, trends, probability, statistical inference and failure modes, variance analysis, and electronic data processing.

***Prerequisite:*** None.

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**21824**

**ALTIMETRY AND BAROMETRY**

**(1 WEEK, 2 1/2 DAYS)**

This course is designed for air carrier and general aviation airworthiness (avionics) inspectors. Subject areas include, but are not limited to, altimetry problems, physics of the atmosphere; atmospheric measurement standards; units and dimensions; types of barometers and manometers; solid-state barometric techniques, installation calibration, correction and acceptable maintenance practices relative to barometer installations; and standard procedures used in connection with pressure observations, reduction of pressure altimetry, aircraft pitot static systems, altimeters, and airspeed indicators.

***Prerequisite:*** None.

***Other Requirements:*** Participants must meet the requirements for the aviation safety inspector (airworthiness) which requires the participants to be knowledgeable and qualified in the electrical/electronics and maintenance specialist areas.



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21825

**AVIONICS TEST AND  
MEASURING EQUIPMENT**

**(1 WEEK, 1 1/2 DAYS)**

This course is designed for air carrier and general aviation airworthiness (avionics) inspectors. The subject areas include, but are not limited to, review of the various systems of electrical measuring units with emphasis on the current legal basis for electrical units (PL 617); discussion of the equipment, techniques, and procedures employed to maintain the integrity of electrical units and calibration procedures employed to assure traceability to National Bureau of Standards values; general coverage of representative types of analog and digital, alternating current (AC) and direct current (DC) electrical measuring instruments; signal sources, frequency, time, phase, waveform standing wave ratio (SWR) and reflection coefficient measuring equipment.

*Prerequisite:* None.

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21846

**AVIONICS CERTIFICATION  
PROCEDURES**

**(2 WEEKS)**

This course is designed for airworthiness inspectors responsible for making approvals of avionic system installations. The course consists of discussions, lectures, operational demonstrations, videos and practical exercises relating to applicable regulatory requirements and approvals. The course is designed to enhance the participant's knowledge and skills in the technical concepts, operational features, approval/disapproval processes, and regulatory requirements of state-of-the-art avionic systems. The achievement of objectives is determined by using oral questions, practice exercises and/or end-of-lesson tests. A written examination will be administered at the completion of the course.

*Prerequisite:* 21811, General Aviation Aircraft Alterations.

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21903

**TYPE/PRODUCTION  
CERTIFICATION AND  
APPROVAL TECHNIQUES**

**(1 WEEK, 3 DAYS)**

This course is designed for manufacturing inspectors and consists of 58 hours of classroom instruction and 18 hours of laboratory sessions. The instructions provided will enable the participant to satisfactorily participate in type certification approval, production approval, and day-to-day certificate management surveillance.

*Prerequisite:* None.

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21904

**AIRWORTHINESS  
CERTIFICATION/APPROVAL  
TECHNIQUES AND  
ENFORCEMENT**

**(1 WEEK, 3 DAYS)**

This course is designed for manufacturing inspectors. Course content includes 44 hours of classroom instruction and 32 hours of laboratory sessions. Subject areas include airworthiness certification and enforcement programs.

*Prerequisite:* None.

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21909

**INDOCTRINATION FOR  
AVIATION SAFETY INSPECTORS  
(AIRWORTHINESS)**

**(4 WEEKS, 1 DAY)**

This course combines air carrier/airworthiness and general aviation airworthiness job functions and is presented as a part of the new-hire string during the first year of employment. The course consists of lecture and classroom /interactive exercises. Job tasks which are specific to airworthiness safety inspectors are the focus of the course and the course is designed to indoctrinate new hire inspectors in the performance of either air carrier or general aviation certification and surveillance functions.

*Prerequisite:* None.

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22100

**AIR CARRIER OPERATIONS  
PART 135**

**(1 WEEK, 4 DAYS)**

This course is designed for general operations inspectors/specialists whose duties include the certification, inspection, and surveillance of air taxi operators and operations. The objective of this course is to train participants in the regulations, policies, procedures, and documentation required to satisfy the FAA's responsibility regarding air taxi operations.

*Prerequisite:* None.

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22102

**FLIGHT SIMULATOR  
EVALUATION**

**(1 WEEK)**

This course is designed for aviation safety inspectors. The course consists of classroom and simulator laboratory instruction in the techniques, procedures, policies, and criteria of evaluating, certifying, and approving simulators. The training provided will enable inspectors to understand the process to conduct initial and recurrent evaluations of simulators and also to conduct surveillance of simulators and visual systems. Participants will be involved in the simulator with the use of the Fokker control force measuring system, the throughout delay check, performance tests in the master approval test guide, and functional tests.

*Prerequisite:* 21607, Air Carrier Operations Indoctrination; or 20700, General Aviation Operations Indoctrination.

*Other Requirements:* Possess an Airline Transport Pilot Certificate with a type rating in at least one large turbine-powered transport airplane or light twin jet executive transport.

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22461

**AIRBORNE PULSE EQUIPMENT**

(5 WEEKS)

This course is designed for avionics technicians who are responsible for installation, modification, and maintenance of airborne pulse equipment used in jet flight inspection aircraft. Subject areas include pulse principles, pulse test equipment, RDR-1200 weather radar, ALA-51A radio altimeter, and 621A-6 transponder.

*Prerequisite:* 22464, Principles of Airborne Digital Circuitry or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.

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22462

**FLIGHT CONTROL SYSTEMS**

(6 WEEKS)

This course is designed to provide the avionics technician with the essential knowledge and skills required to perform installation, modification, and maintenance of the FCS-105 Flight Control System and MC-103 Magnetic Compass System. These systems are utilized in the FAA light jet flight inspection aircraft. Subject areas include theory of flight, logic circuits review, circuit analysis, maintenance and calibration of the FCS-105 Flight Control System and MC-103 Magnetic Compass System.

*Prerequisite:* 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination.

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22464

**PRINCIPLES OF AIRBORNE  
DIGITAL CIRCUITRY**

(3 WEEKS)

This course is designed for avionics technicians as a prerequisite for advanced avionics maintenance courses. Satisfactory completion prepares the applicant to attend any of the following courses: 22473, 22474, 22475, 22465, and 22470. Subject areas include basic semiconductor theory, digital logic analog and digital integrated circuits, Boolean expressions, basic arithmetic operations in decimal, binary and octal systems, ARINC standards, repair and rework techniques, and analysis of logic flow diagrams.

*Prerequisite:* 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination.

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22465

**AIRBORNE TACTICAL AIR  
NAVIGATIONAL AID (TACAN)/  
INITIAL NAVIGATIONAL FLIGHT  
INSPECTION SYSTEMS (INFIS)**

(5 WEEKS)

This course is designed for avionics technicians responsible for installation, modification, and maintenance of airborne pulse equipment used in flight inspection aircraft. Subject areas include pulse principles, pulse test equipment, DTS-101C TACAN simulators, and the TACAN/INFIS system.

*Prerequisite:* None.

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22470

**FUNDAMENTALS OF  
MICROPROCESSOR  
CONTROL AVIONICS SYSTEMS**

**(3 WEEKS)**

This course is designed to provide avionics technicians with the knowledge and skills necessary for an in-depth study of microprocessor-based systems. This course will be used as a prerequisite for future courses containing microprocessor-controlled equipment. The course consists of approximately 60 hours classroom study and 60 hours laboratory. Subject areas include microprocessor systems configurations, number systems, programing languages, hardware concepts, control circuits, and peripherals. The laboratory will utilize an 8085 based microprocessor trainer which the participant will learn to program and then troubleshoot with the aid of various types of digital test equipment.

**Prerequisite:** 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination.

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22473

**BE-300 FLIGHT INSPECTION  
COMPUTER AND EQUIPMENT**

**(3 WEEKS, 2 DAYS)**

This course is designed for avionics technicians who are responsible for the maintenance and repair of the BE-300 automatic flight inspection computer system. Subject areas include system operation analysis, selection and use of test equipment, and component repair. This course consists of classroom theory of operation instruction, laboratory equipment performance checks, and troubleshooting procedures. Achievement of outcomes is determined through laboratory performance and written examinations.

**Prerequisites:** 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.

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22474

**BE-300 NAVIGATIONAL  
EQUIPMENT**

**(5 WEEKS)**

This course is designed for avionics technicians who are responsible for the maintenance and repair of the RNA-34AF very high frequency omni-directional radio range (VOR)/instrument landing system (ILS) receiver, DFA-75A automatic direction finder (ADF) receiver, and MKA-28 marker receiver. Subject areas include system operational analysis, selection and use of test equipment, and component repair. The course consists of classroom theory of operation instruction, laboratory equipment performance checks, and troubleshooting procedures. Achievement of outcomes is determined through laboratory performance and written examinations.

**Prerequisites:** 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.

22475	<p>This course is designed for avionics technicians who are responsible for the maintenance and repair of the BE-300 avionics pulse systems. Subject areas include system operation analysis, selection and use of test equipment, and component repair. The course consists of classroom theory of operation instruction, laboratory equipment performance checks, and troubleshooting procedures. Achievement of outcomes is determined through laboratory performance and written examinations.</p>
<b>BE-300 PULSE EQUIPMENT</b>	<p><i>Prerequisites:</i> 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.</p>
(5 WEEKS)	
22476	<p>This course is designed for avionics technicians to provide the essential knowledge and skills required to perform testing and troubleshooting of the radio navigation (RNAV), KFC-400 flight control, and flight inspection systems utilized in the FAA BE-300 flight inspection aircraft. Subject areas include theory of operation, system data flow, operating procedures, troubleshooting of the aircraft, RNAV, flight control, and flight inspection systems.</p>
<b>BE-300 INTERFACE</b>	<p><i>Prerequisites:</i> 22473, BE-300 Flight Inspection Computer and Equipment; 22474, BE-300 Navigational Equipment; and 22477, BE-300 Flight Control Systems.</p>
(2 WEEKS)	
22477	<p>This course is designed for avionics technicians who are responsible for the maintenance and repair of the BE-300 flight control avionics equipment. Subject areas include system operation analysis, selection and use of test equipment, and component repair. The course consists of classroom theory of operation instruction, laboratory equipment performance checks, and troubleshooting procedures. Achievement of outcomes is determined through laboratory performance and written examinations.</p>
<b>BE-300 FLIGHT CONTROL SYSTEMS</b>	<p><i>Prerequisites:</i> 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.</p>
(5 WEEKS)	

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22478

**BE-300 COMMUNICATIONS  
EQUIPMENT**

**(5 WEEKS)**

This course is designed for avionics technicians who are responsible for the installation, operational testing, calibration, and repair of airborne communications equipment installed in the BE-300 flight inspection aircraft. Subject areas include high frequency (HF), very high frequency (VHF), and ultra high frequency (UHF) transceivers, and associated test equipment.

***Prerequisites:*** 22464, Principles of Airborne Digital Circuitry; or 22517, Avionics Screening Examination; and 22470, Fundamentals of Microprocessor Control Avionics Systems.

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22501

**FUNDAMENTALS OF AIRCRAFT  
STRUCTURES FOR INSPECTORS**

**(1 WEEK, 3 DAYS)**

This course is designed for manufacturing and maintenance inspectors. Subject areas include basic mathematics, forces and moments, stress analysis, aircraft structural design considerations, detrimental effects on aircraft structures, fasteners and fastening techniques, structural repair, inspection methods, and structural testing.

***Prerequisite:*** None.

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22502

**NONDESTRUCTIVE  
TESTING (NDT)**

**(1 WEEK, 3 DAYS)**

This course is designed for engineers, inspectors, and quality control specialists. Subject areas include evaluation of NDT methods with regard to choice of appropriate methods, application of individual methods, limitation of each method, and surveillance of methods; evaluation of infrared, penetrant, magnetic particle, eddy current, ultrasonic, radiography, holography, and optical methods of NDT; and laboratory detection of metal defects, cracks, changes in material properties, manufacturing voids, mechanical defects, and thickness measurements.

***Prerequisite:*** None.

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22517

**AVIONICS SCREENING  
EXAMINATION**

**INTERNATIONAL PARTICIPANTS  
MAY ENROLL ONLY AS A  
PREREQUISITE FOR RESIDENT  
TRAINING.**

This examination is a prerequisite for advanced avionics maintenance courses. It is a closed book examination consisting of 50 questions designed to determine if the participant is prepared to attend any of the following courses: 22459, 22460, 22461, 22462, 22465, 22466, or 22470. Subject areas include basic semiconductor theory, digital logic, analog and digital integrated circuits, boolean expressions, basic arithmetic operations and binary and octal number systems, and analysis of log flow diagrams. This written examination takes 2 hours and must be taken at the FAA Academy.

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22600

**EVALUATION OF AVIATION  
MANAGEMENT SYSTEMS**

**(1 WEEK, 3 1/2 DAYS)**

This course is designed for aviation safety inspectors in all specialties including manufacturing inspectors. The course consists of classroom and workshop instruction on methods used to evaluate the effectiveness and value of aviation management systems. Course instruction includes types of organizations, organizational principles, company evaluation planning, management concepts, essentials of system design, methods of charting, problem/decision analysis, procedure analysis, block and linear responsibilities, interview techniques, identification of policy/procedures, and report preparation.

***Prerequisite:*** 20700, General Aviation Operations Indoctrination; or 21601, Air Carrier Maintenance/Electronics Indoctrination; or 21603, General Aviation Maintenance/Electronics Indoctrination; or 21607, Air Carrier Operations Indoctrination; or 20702, General Aviation Operations Indoctrination Revised.





## AIRWAY FACILITIES DIVISION

The Airway Facilities Division of the FAA Academy trains the electronic technicians and engineers responsible for installation, maintenance and certification of communications, automation, navigational aids, radar equipment, and environmental systems. The course offerings include extensive instruction in electronics. Participants learn to install and repair very high frequency omni-directional radio range (VOR), tactical air navigational aid (TACAN), instrument landing system (ILS), approach lighting very high frequency (VHF)/ultra high frequency (UHF) transceivers, and an enormous variety of other air traffic control systems including terminal and en route radars and the computers supporting those systems.

Many resident courses combine standard classroom lectures with follow-up laboratory training. Laboratories make use of specific types of equipment utilized in FAA field facilities for hands-on training, giving participants the opportunity to learn calibration and maintenance procedures, complicated test procedures, and troubleshooting techniques on equipment dedicated to the training effort.

Many courses are being conducted in an individualized training mode known as computer-based instruction (CBI). Rather than being in a standard classroom, the participant is in a learning center environment based around a computer terminal. Other instructional media such as videotapes, textbooks, and slide-tape presentations are also available. The participant interacts with the computer, which can present lessons and can draw and simulate many kinds of equipment, providing laboratory exercises as well as academic material. The computer is used to manage the participant's learning environment, presenting lessons or giving assignments using the other media available, testing, and keeping records.

CBI provides an individual learning experience. Participants proceed at their own pace. While an instructor is not actually present as in a classroom situation, one can be contacted by the participant if there are any problems.

Enrollment in CBI courses is available continuously. Because instruction is individualized, enrollment is not limited by class size.

In other courses, CBI is utilized for certain lessons in combination with standard classroom and laboratory instruction. Courses which are totally CBI managed will be denoted by the symbol CBI in this catalog.

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40023

**INTEGRATED COMMUNICATIONS  
SWITCHING SYSTEM (ICSS)  
TYPE I, MAINTENANCE**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance, evaluation, modification, or certification of Model 400 ICSS, Type I. Subject areas include a functional analysis of the overall ICSS operation of computer-controlled reconfiguration of circuits and frequencies, an operational analysis of the system control unit (SCU), position (console) equipment and central equipment, and the electronic switching system (ESS). It also includes a detailed explanation of required maintenance procedures and provides hands-on experience in performing preventative and corrective maintenance.

*Prerequisite:* 47502, Communications Equipment (CE).

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40024

**INTEGRATED COMMUNICATIONS  
SWITCHING SYSTEM (ICSS),  
TYPE II, MAINTENANCE**

**(2 WEEKS)**

This course is designed to train technicians diagnostics troubleshooting and repair to the lowest repairable unit (LRU) level for ICSS, Type II equipment, located in air traffic control (ATC) towers and terminal radar approach control facilities (TRACONS). Upon completion, the participant will be able to replace faulty LRUs with serviceable spare modules. The ICSS, Type II, provides communications switching for towers and TRACONS with more than 16 positions. Subject areas include concepts on pulse code modulation and time division multiplexing; functional block diagrams; signal flow and operation; troubleshooting, using a guide; fault display equipment; and manual reconfiguration terminal.

**Prerequisite:** 47502, Communications Equipment (CE).

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40025

**INTEGRATED COMMUNICATIONS  
SWITCHING SYSTEM (ICSS)  
TYPE III, MAINTENANCE**

**(5 WEEKS, 4 DAYS)**

This course is designed for participants responsible for maintenance, evaluation, modification or certification of DENRO, Phase I, Type III, ICSS. Subject areas include functional analysis of the overall ICSS operation of computer-controlled reconfiguration of circuits and frequencies and operational analysis of the system control unit (SCU), a functional analysis of the automatic call distribution (ACD) subsystem and the voice retrieval and store (VRS) audichron, and a functional analysis of the electronics switching system.

**Prerequisites:** 47502, Communications Equipment (CE); 44415, Microprocessors; and 47001, Troubleshooting Techniques.

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40026

**INTEGRATED COMMUNICATIONS  
SWITCHING SYSTEM (ICSS)  
TYPE III LITTON**

**(3 WEEKS)**

This course is designed for participants responsible for maintenance, evaluation, modification or certification of Litton, Type III, ICSS. Subject areas include a function analysis of the ICSS operation of five computer-controlled controllers systems and operational analysis of the fault display equipment (FDE) subsystems and the manual reconfiguration terminal (MRT) subsystem, operational analysis of the automatic call distribution (ACD) system and the voice retrieval and store (VRS) audichron, and a functional analysis of the electronic switching.

**Prerequisites:** 47502, Communications Equipment (CE); 44415, Microprocessors; and 47001, Troubleshooting Techniques.

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40034

**RADIO CONTROL EQUIPMENT  
(RCE) FOR TECHNICIANS**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance, evaluation, modification, or certification of RCE system. The course is instructor led with hands-on experience for the participants. Subject areas include theory of operations, maintenance procedures, and trouble analysis.

**Prerequisite:** 47502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

40114	<p>This course is designed for participants responsible for installation, maintenance, and repair of air conditioning units of up to 10 tons capacity. Subject areas include cycle diagrams, evaporators and condensers, refrigerant flow controls, compressors, AC motors, electrical controls, heat pump, refrigerant piping and accessories, and maintenance and servicing procedures.</p> <p><i>Prerequisites:</i> 47600, Electrical Principles, or equivalent; 43658, Air Conditioning On-the-Job Training (OJT)-1; 44106, Air Conditioning; and 47001, Troubleshooting Techniques and Safety Practices.</p>
AIR-CONDITIONING	
(3 WEEKS)	
40121	<p>This course is designed for participants responsible for installation, maintenance, and evaluation of direct burial power and control cable. The training consists of classroom study and laboratory hands-on training. The subject areas include selected splicing techniques for both low and high voltage direct burial power cable, direct burial control, cable analysis and fault location principles, and selected cable fault-finding exercises. Representative types of cable fault-finding equipment will be utilized which represent the various manufacturers' cable fault-finding equipment.</p> <p><i>Prerequisites:</i> 47600, Electrical Principles; and 47001, Troubleshooting Techniques and Safety Practices.</p>
CABLE FAULT ANALYSIS AND REPAIR	
(2 WEEKS)	
40122	<p>This course is designed for participants responsible for installation, operation, evaluation, and repair of PCS/RML systems. Subject areas include system concepts, circuit analysis, operation, evaluation, maintenance procedures, troubleshooting, and fault correction down to component level.</p> <p><i>Prerequisites:</i> 47600, Electrical Principles; and 47001, Troubleshooting Techniques and Safety Practices.</p>
POWER CONDITIONING SYSTEM (PCS) FOR RADAR MICROWAVE LINK (RML)	
(2 WEEKS)	
40127	<p>This course is designed for participants responsible for installation, operation, evaluation, and repair of standby engine generators. Subject areas include systems concepts, circuit analysis, diesel fuel systems evaluation and maintenance procedures, gasoline and diesel engine tuneup and evaluation, control component adjustment and repair, alternator and exciter maintenance procedures, and uninterrupted power transfer operation.</p> <p><i>Prerequisites:</i> 47600, Electrical Principles; and 47001, Troubleshooting Techniques and Safety Practices.</p>
ENGINES AND CONTROL PANELS	
(5 WEEKS)	

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40128

**ENGINE GENERATOR CONTROL  
DEVICES**

(2 WEEKS)

This course is designed for participants responsible for installation, maintenance, and evaluation of engine generator standby powerplants. The training consists of classroom study and laboratory exercises. Subject areas include generators and exciters, REG-OHM and solid-state voltage regulators, magnetic amplifiers, electronic governors, solid-state potential relay (PR) and time delay relays. The classroom and laboratory activities are designed to emphasize theoretical and hands-on training on the maintenance and diagnostic troubleshooting of electronic circuits and systems.

**Prerequisites:** 47600, Electrical Principles; and 47001, Troubleshooting Techniques and Safety Practices.

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40129

**DIESEL ENGINE  
GENERATORS, 550KW**

(2 WEEKS)

This course is designed for participants responsible for operation, maintenance, and evaluation of 550KW diesel engine generators. Subject areas include electronic governor with ballhead back-up (EGB)-10C, hydraulic governor, load balancing of cylinders, crankshaft deflection, engine generator coupling alignment, safety devices, and evaluation of overall performance of engine auxiliary equipment.

**Prerequisite:** 40127, Engines and Control Panels.

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40130

**AIR ROUTE TRAFFIC CONTROL  
CENTER (ARTCC) STANDBY  
POWER AND DISTRIBUTION  
SYSTEM**

(8 WEEKS)

This course is designed for participants responsible for installation, maintenance, and evaluation of ARTCC standby power and distribution system. The course consists of 160 hours of classroom instruction and 160 hours of laboratory exercises. Subject areas include commercial and generator power breakers, automatic control panel circuits, automatic synchronizing panel circuits and related switch-gear components; and operation, evaluation, troubleshooting, correction of malfunctions and deficiencies of the complete electrical distribution system. The training prepares the power option technician to be able to isolate faults down to the component level without assistance, except in the most complex and unique situations. The skills of the technician will be developed to the level necessary to accept complete responsibility for installation, maintenance, and evaluation of the ARTCC standby power and distribution system.

**Prerequisites:** 47600, Electrical Principles; and 47001, Troubleshooting Techniques and Safety Practices.

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40131

**AIR ROUTE TRAFFIC CONTROL  
CENTER (ARTCC) POWER  
CONDITIONING SYSTEM (PCS)**

(7 WEEKS)

This course is designed for participants responsible for installation, operation, evaluation, and repair of ARTCC power conditioning systems. Subject areas include systems concepts, circuit analysis, operation evaluation and maintenance procedures, troubleshooting, and fault correction down to the component level.

**Prerequisite:** 40130, Air Route Traffic Control Center Standby Power and Distribution System.

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40132

**BOILERS AND CHILLERS**

(3 WEEKS)

This course is designed for participants responsible for installation, maintenance, and evaluation of boilers and heavy duty air conditioning systems. Subject areas include theory and construction of boilers and air conditioning systems; troubleshooting; water testing and treatment; boiler tube replacement methods; boiler operational safety; centrifugal chillers, motors, and controls; water distribution equipment; air handling; and auxiliary equipment.

*Prerequisite:* 40114, Air Conditioning.

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40133

**ENVIRONMENTAL SYSTEMS  
AND CONTROLS**

(5 WEEKS)

This course is designed for participants at an air route traffic control center responsible for maintenance, calibration, and operation of pneumatic controls and devices. The types of pneumatic controls covered are Johnson, Honeywell, Robert Shaw, Barber-Coleman, and Powers. Subject areas also include properties and conditions of air, system analysis and balancing, pneumatic control of air handling equipment, environmental control systems, use of special test equipment, troubleshooting and calibration methods, and performance evaluation.

*Prerequisites:* 40114, Air Conditioning; and 40132, Boilers and Chillers.

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40135

**APPROACH LIGHTING SYSTEM  
WITH FLASHERS (ALSF) II  
(GODFREY)**

(3 WEEKS)

This course is designed for technicians and engineers responsible for installation, maintenance, and repair of dual mode approach lighting system, type FA-9993, and the associated ADB-ALNACO flasher system. Subject areas include system configuration; adjustments for initial installation; system and circuit analysis; and evaluation, repair, and preventative maintenance. The Academy laboratory gives hands-on experience in maintaining, servicing, and troubleshooting the dual mode ALS FA-9993 system.

*Prerequisites:* 47600, Electrical Principles; and 47001, Troubleshooting Techniques.

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40136

**APPROACH LIGHTING SYSTEM  
WITH FLASHERS (ALSF) II  
(AIRFLO)**

(3 WEEKS)

This course is designed for technicians and engineers responsible for installation, maintenance, and repair of dual mode approach lighting system (ALS), type FA-10048, manufactured by Airflo Instrument Company. Subject areas include system configuration, adjustments for initial installation system and circuit analysis, evaluation, repair, and preventative maintenance. The participants troubleshoots system malfunctions using the supplied diagnostic aide and standard troubleshooting methods associated with digital, microprocessor, and analog circuits.

*Prerequisites:* 47600, Electrical Principles; and 47001, Troubleshooting Techniques.

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**40137**

**LIGHTNING PROTECTION,  
GROUNDING, BONDING,  
SHIELDING (LPGBS)**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance, evaluation, and certification of LPGBS system. The course consists of electrical safety hazards and troubleshooting techniques required to maintain the LPGBS system for field facilities. Participants must have a basic electrical engineering or electrical principle background.

***Prerequisites:*** 47600, Electrical Principles; and 47001, Troubleshooting Techniques

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**40139**

**CENTRAL CONTROL  
MONITORING SYSTEM (CCMS)  
REPLACEMENT**

**(3 WEEKS)**

This course is designed for participants responsible for operation, maintenance, and evaluation of CCMS. Training consists of classroom study and laboratory exercises on the actual equipment. The course is also designed to develop skills in performance evaluation, fault diagnostics, test procedures, and routine checks and adjustments.

***Prerequisites:*** 44415, Microprocessors; 47600, Electrical Principles; and 47001, Troubleshooting Techniques.

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**40145**

**MEDIUM-INTENSITY APPROACH  
LIGHT SYSTEM(MALS)/RUNWAY  
ALIGNMENT INDICATOR LIGHTS  
(RAIL)/RUNWAY-END  
IDENTIFICATION LIGHT (REIL)  
FA-10229, FA-10097**

**(1 WEEK)**

This course is designed for participants responsible for installation, maintenance, and evaluation of Godfrey FA-10229 and FA-10097 MALS/RAIL/REIL.

***Prerequisite:*** None.

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**40149**

**EXIDE POWER CONDITIONING  
SYSTEM (PCS) MAINTENANCE**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, and maintenance of exide uninterruptible power source (UPS). The subject areas include theory of operation, system operation and evaluation, preventive maintenance procedures, and fault analysis. The laboratory sessions develop practical skills in system operating procedures, system evaluation, routine test procedures and adjustments, and isolation of faults.

***Prerequisites:*** 47600, Electrical Principles; and 47001, Troubleshooting Techniques.

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**40213**

**RUNWAY VISUAL RANGE (RVR)  
EQUIPMENT, TYPE FA-7861**

**(3 WEEKS)**

This course is designed for participants responsible for installation, evaluation, maintenance, and certification of RVR, FA-7861 system. The course consists of classroom lectures on logic circuit boards, timing chain, command generator, background and transmission counters, buffer storage register, decode/encode matrix, answer counter, solution encoder, indicator drivers, indicators, data transmitter, code separator, light setting receiver, and transmissometer system. Laboratory sessions develop skills in fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments.

**Prerequisites:** 47502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

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**40232**

**AN/GRN-27, CATEGORY II  
INSTRUMENT LANDING  
SYSTEM (ILS)**

**(3 WEEKS)**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of AN/GRN-27, Category II ILS. The course consists of classroom discussions, laboratory exercises, and examinations. Classroom subjects include localizer/glide slope (GS) transmitter unit, traveling wave antenna null reference GS antenna monitor unit, identification unit, battery charger, alternating current (AC)/direct current (DC) converter, marker beacon, far field monitor, and overall system operation and performance. Laboratory exercises provide the participant with experience in the operation, maintenance techniques, calibration and fault diagnosis of the system.

**Prerequisites:** 40233, Instrument Landing System (ILS) Concepts.

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**40233**

**INSTRUMENT LANDING  
SYSTEM (ILS) CONCEPTS**

**(2 WEEKS)**

This course is designed for participants preparing for resident courses covering installation, evaluation, modification, and maintenance of ILS. The course consists of classroom discussions, laboratory exercises, and examinations. The subjects are common to several instrument landing systems. Subject areas include difference in depth of modulation, proximity effects, null reference glide-slope radiation patterns and monitor networks, the V-ring localizer radiation patterns and monitor networks. Laboratory exercises provide the participant with experience in analyzing and adjusting the null reference glide slope and the V-ring localizer antenna systems. Laboratory procedures require the participant to align the radar system, fault isolate, and use corrective procedures to restore operation..

**Prerequisite:** 40406, Computer Hardware Fundamentals; or 44415, Microprocessors.

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40235

**INSTRUMENT LANDING SYSTEM  
(ILS) WILCOX MARK 1A/C**

**(3 WEEKS)**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of Wilcox Mark 1A/C ILS. The course consists of classroom discussions, laboratory exercises, and examinations. Subject areas include transmitter unit, modular, v-ring antenna system monitor, status control and status unit, oscillator keyer, remote monitor receiver, marker beacon, flight inspection, and overall system operations and performance. Laboratory exercises provide the participant with experience in the operation, maintenance techniques, calibration, and fault diagnosis of the system.

**Prerequisite:** 40233, Instrument Landing System (ILS) Concepts.

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40236

**INSTRUMENT LANDING SYSTEM  
(ILS) AIRBORNE INSTRUMENT  
LABORATORY (AIL) MARK 1B**

**(3 WEEKS)**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of AIL Mark 1B ILS. The course consists of classroom discussions, laboratory exercises, and examinations. Subject areas include transmitter unit, modulator, v-ring antenna system monitor, status control and status unit, oscillator keyer, remote monitor receiver, marker beacon, flight inspection, and overall system operation and performance. Laboratory exercises provide the participant with experience in the operations, maintenance techniques, calibration, and fault diagnosis of the system.

**Prerequisite:** 40233, Instrument Landing System (ILS) Concepts.

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40240

**INSTRUMENT LANDING SYSTEM  
(ILS) CAPTURE EFFECT GLIDE  
SLOPE**

**(1 WEEK, 1 DAY)**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of a capture effect glide slope (CEGS) facility. The course covers the functional operation of the Mark 1A Wilcox, Mark 1B airborne instrument laboratory, AN/GRN-27, and Mark 1D Wilcox facilities. Subject areas include radiation patterns, amplitude and phase control unit, clearance transmitter, monitoring, and flight inspection. Laboratory exercises provide the participant with experience in the operation, maintenance, calibration, and fault diagnosis of the CEGS facility. The course consists of classroom discussions, laboratory exercises, and an examination. This is not a specific equipment course.

**Prerequisite:** 40232, AN/GRN-27, Category II Instrument Landing System (ILS); or 40235, Instrument Landing System (ILS) Wilcox Mark; 1A/C; or 40236, Instrument Landing System (ILS) AIL Mark 1B; or 47703, Glide Slope (Short) - Mark 1D/E/F.



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40252

**RUNWAY VISUAL RANGE (RVR)  
EQUIPMENT TASKER 500**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, maintenance, and certification of RVR Tasker 500 system. Subject areas include system integration, integrated circuit devices graphic recorder, signal data converter modules, functions and sequence of operation, and remote programmer decoding and display operation. Laboratory sessions develop skills in performance evaluation, fault diagnosis, test procedures, and routine checks and adjustments.

*Prerequisites:* 7502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

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40257

**SOLID-STATE DIRECTION FINDER  
(DF), TYPE FA-9964**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance of solid-state DF equipment. Subject areas include the Doppler DF theory and the complete solid-state DF systems. Laboratory sessions develop skills in system alignment, preventive and corrective maintenance, and troubleshooting of the complete system.

*Prerequisites:* 47502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

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40258

**DISTANCE MEASURING  
EQUIPMENT (DME),  
MODELS FA-8974/FA-9639**

**(2 WEEKS)**

This course is designed for participants responsible for installation, maintenance, or evaluation of Cardion Models FA-8974 or FA-9639. The course consists of 45 hours of classroom lectures and 35 hours of laboratory demonstration and performance exercises on the Model FA-9639. If a participant identifies a requirement for Model FA-8974, the differences between the two equipments will be taught and hands-on time provided.

*Prerequisite:* 40276, Common Principles for VOR/TACAN Technicians; or 44215, Distance Measuring Equipment (DME) Principles.

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40261

**DOPPLER VERY  
HIGH FREQUENCY  
OMNI-DIRECTIONAL RANGE  
(DVOR) SYSTEM**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance or evaluation of DVOR equipment. This course provides training on the equipment required to change the second generation VOR to Doppler, including antenna alignment. Training consists of classroom instruction, analytical problems, and exercises related to system performance of malfunctions. Subject areas include Doppler principles, frequency modulation (FM) capture effect, and specialized radiation patterns. Included is a study of the differences in theory maintenance practices between the DVOR and conventional VOR systems.

*Prerequisite:* 47701, Second Generation Very High Frequency Omni-Directional Radio Range and Tactical Air Navigational Aid (VORTAC) Hardware.

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40270

**AIRPORT REMOTE MONITORING  
SYSTEMS (ARMS) FOR ILS  
FA-10165/6/8**

**(2 WEEKS)**

This course is designed for participants responsible for installation, maintenance, or evaluation of ARMS. Subject areas include installation, periodic maintenance checks, alignment, fault diagnosis, equipment modifications needed to interface to the instrument landing system (ILS), use of input/output terminals for ILS monitoring system verification, and theory of operation. Laboratory sessions are used to develop proficiency in the above areas. Participants are taught to configure, troubleshoot and repair the link control unit, remote monitoring subsystem, and the battery charger power supply using test equipment and terminal.

**Prerequisite:** 44415, Microprocessors; or 40406, Computer Hardware Fundamentals; or 44012, Fundamentals of Data Communication.

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40271

**VERY HIGH FREQUENCY (VHF)  
DIRECTION FINDER (VDF)  
MAINTENANCE**

**(2 WEEKS)**

This course is designed for participants responsible for maintenance, certification, and modification of FA-1012X-760 channel VHF/direction finder DF. Subject areas include system concepts, system operation, and initial configuration. The system utilizes a phase modulated cavity filter, uninterruptible power source (UPS), remote maintenance monitoring (RMM), bright radar indicator tower equipment (BRITE), color graphics operator positions, and Intel microcomputers linked via an ethernet local area network. A written examination and performance examination is used to evaluate a participant's achievement.

**Prerequisites:** 47502, Communications Equipment (CE); 47001, Troubleshooting Techniques; and 40257, Solid-State Direction Finder (DF), Type FA-9964.

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40272

**VOICE SWITCHING  
COMMUNICATIONS  
SYSTEM (VSCS)**

**(8 WEEKS)**

This course is designed for electronics technicians/engineers responsible for maintenance of the hardware for VSCS. The course consists of lectures and laboratory exercises. Subject areas include system configuration, troubleshooting, software configuration and restoration, and analysis of software diagnosis.

**Prerequisites:** 44012, Fundamentals of Data Communication; 44419, Fundamentals of Computer Software; and 40406, Computer Hardware Fundamentals.

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40273

**VOICE SWITCHING AND  
CONTROL SYSTEM (VSCS)  
SOFTWARE SUPPORT**

**(8 WEEKS)**

This course is designed for electronics technicians/engineers responsible for maintenance of the operational software program for VSCS. Subject areas include writing, debugging, and executing programs; updating and modifying adaption parameters; and modifying, debugging, and executing maintenance and diagnostic programs. The course consists of lectures and laboratory exercises.

***Prerequisite:*** 40272, Voice Switching Communications System (VSCS); or 48171, Voice Switching and Control System (VSCS) Hardware.

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40274

**LOW LEVEL WINDSHEAR ALERT  
SYSTEM (LLWAS), FA-10240**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, maintenance, and certification of LLWAS, FA-10240. Subject areas include system integration, operation, preventative maintenance, and fault isolation to the lowest repairable unit. The laboratory sessions develop skills in system analysis, fault diagnosis, troubleshooting procedures, and routine checks and adjustments.

***Prerequisites:*** 47502, Communications Equipment (CE); and 47001, Second Generation VORTAC Hardware.

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40276

**COMMON PRINCIPLES FOR  
VERY HIGH FREQUENCY  
OMNI-DIRECTIONAL RANGE  
(VOR)/TACTICAL AIR  
NAVIGATION (TACAN)  
TECHNICIANS**

**(3 WEEKS)**

This course is designed for participants responsible for installation, maintenance, and evaluation of VOR, TACAN, and DME systems. Subject areas include VOR principles, antenna and radiation patterns, transmission lines, modulation techniques, magnetic amplifiers, and microwave receiver theory.

***Prerequisite:*** 40406, Computer Hardware Fundamentals; or 44415, Microprocessors.

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40277

**LOW-LEVEL WINDSHEAR ALERT  
SYSTEM (LLWAS) CLIMATRONICS**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, maintenance, and certification of LLWAS, FA-10239, which is the six sensor update version of the climatronics FA-10044. Subject areas include system integration, operation, preventive maintenance, fault diagnosis, troubleshooting procedures, and checks and adjustments. It is recommended that a tutorial of Microsoft disk operating system for personal computers be taken before attending this course.

***Prerequisites:*** 47502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

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40279

**RUNWAY VISUAL RANGE (RVR)**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, and certification of second generation RVR (Teledyne). Subject areas include the block diagram of the visibility sensors, sensor interface electronics, ambient light sensors, runway light intensity monitors, data processing unit, controller displays, messages monitored through remote maintenance monitoring systems, and external users. Laboratory sessions develop skills for fault isolation to the major component or lowest repairable unit, performance analysis, test procedures, calibration procedures, and routine checks and adjustments.

**Prerequisites:** 47502, Communications Equipment (CE); and 47001, Troubleshooting Techniques.

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40280

**REMOTE RADIO CONTROL  
SYSTEM (RRCS) MAINTENANCE**

**(1 WEEK)**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of RRCS equipment. Subject areas include switch cabinet, encoder interface unit, transmitters, receiver, and decoder. Laboratory sessions develop skills in fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments.

**Prerequisites:** 47600, Electrical Principles; and 47001, Troubleshooting Techniques.

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40286

**VERY HIGH FREQUENCY  
OMNI-DIRECTIONAL  
RADIO RANGE (VOR)/DISTANCE  
MEASURING EQUIPMENT (DME)  
MAINTENANCE COURSE  
(SECOND BUY)**

**(2 WEEKS)**

This course is designed for participants responsible for installation, evaluation, maintenance, and certification of VOR/DME. Subject areas include system integration, operation, preventive maintenance, and fault isolation to the lowest repairable unit. The laboratory sessions develop skills in system analysis, fault diagnosis, troubleshooting procedures, routine checks and adjustments, and certification procedures. The system is fully compatible with remote maintenance monitoring (RMM) and interfaces with the maintenance processing subsystem (MPS).

**Prerequisites:** 40276, Common Principles for VOR/TACAN Technicians; and 40509, Common Principles for Electronic Technicians.

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40328

**SOLID-STATE VIDEO MAPPER**

**(1 WEEK)**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, and certification of solid-state video mappers. Subject areas include equipment characteristics, block diagram analysis, a detailed analysis of map scanners, and their associated elements in this equipment. Simulated malfunctions are analyzed during supervised study. Laboratory sessions develop skills in system alignment, system performance, fault diagnosis, and use of test equipment.

**Prerequisite:** 40392, Common Principles for Radar Technicians.

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40333

**AIRPORT SURVEILLANCE  
RADAR (ASR) -8**

**(6 WEEKS)**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, or certification of ASR-8 system. Subject areas include system concepts, system timing, Klystron transmitter, normal receiver, digital moving target indicator (MTI) system, sensitivity time control (STC), diversity antenna system, and control circuits. Laboratory procedures require the participant to align the radar system, fault isolate, and use corrective procedures to restore operation.

*Prerequisite:* 40392, Common Principles for Radar Technicians.

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40337

**AIRPORT SURVEILLANCE  
RADAR (ASR) -9**

**(9 WEEKS)**

This course is designed for participants responsible for maintenance, certification, and modification of ASR-9 system. Training consists of laboratory procedures which require the participant to operate the radar system and its computer control and evaluation subsystem, i.e., remote monitoring subsystem (RMS). The laboratory procedures will require fault isolation testing, corrective procedures, and certification procedures arrived upon by manipulation of computer data. Adjustments to the radar system will be done both by conventional means and via the RMS. Classroom instruction will concentrate on the functional theory of operation. The course is intended for radar technicians/engineers with prior experience in other FAA radar systems.

*Prerequisite:* 40392, Common Principles for Radar Technicians.

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40339

**AIR TRAFFIC CONTROL BEACON  
INTERROGATOR (ATCBI)-5  
TRANSMITTER/RECEIVER SITE**

**(2 WEEKS)**

This course is designed for participants responsible for installation, maintenance, evaluation, modification, or certification of ATCBI-5. Subject areas include system concepts, pulse mode generator, transmitter, receiver, stagger/destagger, side lobe suppression/improved side lobe suppression (SLS/ISLS), monitors, control circuits, and beacon test sets.

*Prerequisite:* 40392, Common Principles for Radar Technicians.

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40373

**DIGITAL BRIGHT RADAR  
INDICATOR TOWER  
EQUIPMENT (DBRITE)**

**(2 WEEKS)**

This course is designed for participants responsible for installation, maintenance, or certification of DBRITE. Training consists of classroom lectures, laboratory sessions, and written examinations. Subject areas include functional theory of subsystem components, fault identification, and isolation using system diagnostic procedures.

*Prerequisite:* 44415, Microprocessors.

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40392

**COMMON PRINCIPLES FOR  
RADAR TECHNICIANS**

**(5 WEEKS)**

This course is designed for participants responsible for maintenance of radar facilities. Subject areas include radar concepts, pulse modulators, radar oscillators/power amplifiers, radar receivers, moving target indicators (MTI)/moving target detectors (MTD), and indicators.

**Prerequisites:** 40406, Computer Hardware Fundamentals; and 44415, Microprocessors.

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40406

**COMPUTER HARDWARE  
FUNDAMENTALS**

**(3 WEEKS)**

This basic fundamentals course is designed for airway facilities participants who require computer hardware entry-level knowledge and skills. These knowledge and skills will be required for enrollment in other airway facilities courses. The course consists of classroom instruction and laboratory sessions. Fundamental concepts of the following subject areas are included: micros, minis, and mainframe computers, computer and central processing unit (CPU) architecture, power supplies, terminology, hardware/firmware/software integration, multiplexing, memory/storage, interfacing requirements, internal/external bussing, and input/output data transfers and devices.

**Prerequisite:** 40509, Common Principles for Electronic Technicians.

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40509

**COMMON PRINCIPLES FOR  
ELECTRONIC TECHNICIANS**

**(10 WEEKS)**

This course is designed for participants preparing to enter any of the following courses: Instrument Landing System (ILS) Circuit Analysis, Very High Frequency Omni-directional Range (VOR)/Tactical Air Navigation (TACAN), or Radar Common Principles. Subject areas include electronic theorems, transient analysis, solid-state devices, logic circuitry, transmission lines, and antennas.

**Prerequisites:** 44419, Fundamentals of Computer Software; and 44511, Electronic Test Equipment.

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42025

**CONTINUOUS DATA  
RECORDING (CDR) SYSTEM**

**(4 WEEKS)**

This course is designed for automated radar terminal systems (ARTS) IIIA and en route automated radar tracking system (EARTS) technicians, engineers, and system performance specialists. Subject areas include the disc drive unit, disc control unit, printer control unit, printer logic, and printer mechanical unit. Classroom subjects include functional analysis of all units. Laboratory sessions develop alignment and fault diagnostic skills.

**Prerequisite:** 42027, Data Processing Subsystem.

42027	<b>DATA PROCESSING SUBSYSTEM</b> <b>(12 WEEKS)</b>	<p>This course is designed for automated radar terminal systems (ARTS) IIIA and en route automated radar tracking system (EARTS) technicians, engineers, and system performance specialists. Subject areas include the input/output processor, modification B, solid-state memory, reconfiguration and fault detection unit (RFDU), associated diagnostics and operational software, system and subsystem concepts, interfaces, and troubleshooting.</p> <p><i>Prerequisite:</i> 40392, Common Principles for Radar Technicians.</p>
42033	<b>AUTOMATED RADAR TERMINAL SYSTEMS (ARTS) IIIA/EN ROUTE AUTOMATED RADAR TRACKING SYSTEM (EARTS) INTRODUCTION</b> <b>(2 WEEKS)</b>	<p>This course is designed for ARTS IIIA/EARTS supervisory personnel. The course consists of classroom lectures, examinations, and laboratory sessions. The instruction provided will assist the supervisor in understanding the overall ARTS IIIA/EARTS. Subject areas include system overview, introduction to ARTS IIIA subsystem and equipment, ARTS IIIA programming, operational program organization, and EARTS differences.</p> <p><i>Prerequisite:</i> None.</p>
42035	<b>AUTOMATED RADAR TERMINAL SYSTEMS (ARTS) IIIA DATA ENTRY AND DISPLAY SUBSYSTEM (DEDS)</b> <b>(3 WEEKS)</b>	<p>This course is designed for ARTS IIIA technicians, engineers, and system performance specialists. Subject areas include the DEDS and multiplexed system display buffer memory. Classroom subjects include functional analysis of all units. Laboratory sessions develop alignment skills and fault diagnosis.</p> <p><i>Prerequisite:</i> 42027, Data Processing Subsystem.</p>
42037	<b>AUTOMATED RADAR TERMINAL SYSTEMS (ARTS) IIIA SOFTWARE FOR TECHNICAL PERSONNEL</b> <b>(6 WEEKS)</b>	<p>This ARTS IIIA course is designed for system performance specialists. The course will provide theoretical training on the ARTS IIIA operational, diagnostic, and support programs necessary to maintain the integrity of the system. Subject areas include the operational program, test, and maintenance programs, on-call, on-link, and off-line diagnostic programs, symbolic coding formats, assembler and builder utility program directives, and debug aids. Laboratory sessions develop skills in verifying ARTS IIIA programs, analyzing program discrepancies, coding emergency patches, and maintaining ARTS IIIA hardware/software integrity.</p> <p><i>Prerequisites:</i> 42035, Automated Radar Terminal Systems (ARTS) IIIA Software for Technical Personnel; and 42045, Peripheral Adapter Module (PAM) for the Automated Radar Terminal Systems (ARTS).</p>

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42045

**PERIPHERAL ADAPTER MODULE  
(PAM) FOR THE AUTOMATED  
RADAR TERMINAL SYSTEMS  
(ARTS) IIIA SYSTEM**

**(2 WEEKS)**

This ARTS IIIA course is designed for technical and engineering personnel responsible for modification, evaluation, and performance of corrective and periodic maintenance on the PAM of the ARTS IIIA. These components consist of the magnetic tape unit, the communication teletype adapter (CTA), and the inter-facility communication adapter (ICA). Laboratory exercises provide hands-on experience in alignment troubleshooting and repair of all the PAM modules.

*Prerequisite:* 42027, Data Processing Subsystem (DPS).

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42046

**EN ROUTE AUTOMATED RADAR  
TRACKING SYSTEM (EARTS)  
DATA ACQUISITION SUBSYSTEM  
(DAS)**

**(3 WEEKS)**

This course is designed for technicians and engineering responsible for modification, evaluation, performance of corrective and periodic maintenance, and certification of EARTS DAS. Instruction and laboratory exercises provide training on the communication multiplexer controller, console data terminal, real time clock unit, automated radar terminal systems (ARTS) peripheral emulator subsystem (APES) and associated diagnostic and operational software, system and subsystem concepts, interfaces, and troubleshooting.

*Prerequisite:* 42027, Data Processing Subsystem (DPS).

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42047

**EN ROUTE AUTOMATED RADAR  
TRACKING SYSTEM (EARTS)**

**(6 WEEKS)**

This course is designed for technicians and engineers responsible for maintenance, modification, evaluation, and certification of EARTS operational system. This course provides training on the newly installed automated radar terminal system (ARTS) peripheral emulator subsystem (APES), review of system subsystems and components, functional flow of diagnostic, and mosaic operational programs. Training includes mosaic operational program, support and diagnostic programs, and programming with APES subsystem.

*Prerequisites:* 42024, Interface Buffer Adapter and Generator (IBAG); 43467, En route Automated Radar Tracking System (EARTS) Display; and 42046, EARTS Data Acquisition Subsystem (DAS).

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47000

**COMMON PRINCIPLES - BASIC**

**(168 CBI HOURS)**

This basic common principles course is designed for participants preparing to enter Course 40233, Instrument Landing System (ILS) Concepts; Course 40276, Common Principles for Very High Frequency Omni-direction Range (VOR)/Tactical Air Navigation (TACAN) Technicians; or Course 40392, Common Principles for Radar Technicians. The course consists of self-paced computer-based instruction (CBI) using the multimedia approach to training in the areas of circuit analysis, oscillators, transmission lines, and antennas.

*Prerequisite:* 44511, Electronic Test Equipment.



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47001

**TROUBLESHOOTING  
TECHNIQUES AND SAFETY  
PRACTICES**

(24 CBI HOURS)

This computer-based instruction (CBI) course is designed for participants responsible for the installation, evaluation, and maintenance of airway facilities equipment. The scope of training includes generic troubleshooting to the block level.

*Prerequisites:* 40276, Common Principles for Very High Frequency Omni-direction Range (VOR)/Tactical Air Navigation (TACAN) Technicians; 40392, Common Principles for Radar Technicians; 47502, Communications Equipment; and 47600, Electrical Principles.

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47002

**MATHEMATICS FOR FAA  
TECHNICAL PERSONNEL**

(240 CBI HOURS)

This course is designed for participants responsible for installation, maintenance, and evaluation of electronic systems. Subject areas include algebra, geometry, analytical geometry, and trigonometry.

*Prerequisite:* None.

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47003

**ELECTRONICS FOR FAA  
TECHNICAL PERSONNEL**

(240 CBI HOURS)

This course is designed for participants responsible for installation, maintenance, and evaluation of electronic systems. Subject areas include basic electronics, troubleshooting techniques, operations of basic test equipment, printed circuit board repair, semiconductor electronics, and digital electronics. Participants are required to perform laboratory exercises. Laboratory exercises are performed throughout the computer-based instruction curriculum not as a dedicated laboratory segment. Various kinds of electronic parts and training equipment are used for these laboratory exercises and are provided in the learning station kit. Heath kit support materials include a digital techniques text with audio cassette and a digital techniques experimenter.

*Prerequisite:* 47002, Mathematics for FAA Technical Personnel.

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47005

**INTRODUCTION TO NATIONAL  
AIRSPACE SYSTEM (NAS) FOR  
NEW HIRES**

(12 CBI HOURS)

This course is designed for participants who are new to the National Airspace System (NAS). The course consists of computer-based instruction (CBI) lessons and examinations. The curriculum explains how the FAA functions as part of the Department of Transportation. The NAS is also presented and explained. Subject areas include the structure of the FAA, standards and certification using the NAS, and NAS improvements.

*Prerequisite:* None.

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47102

**TYPE I INTEGRATED  
COMMUNICATIONS  
SWITCHING SYSTEM (ICSS)**

**(12 CBI HOURS)**

This course is designed as refresher/proficiency training for participants responsible for maintenance, evaluation, modification, and certification of Model 400 ICSS, Type I. Instruction includes a functional analysis using system block diagrams, periodic maintenance using a simulator generated system and simulated test equipment, and corrective maintenance using a simulated malfunctioning Type I ICSS and simulated test equipment.

**Prerequisite:** 40023, Integrated Communications Switching System Type I, Maintenance.

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47500

**BACK-UP EMERGENCY  
COMMUNICATIONS (BUEC) -  
REMOTE SITE**

**(64 CBI HOURS)**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, or certification of remote site BUEC system. Subject areas include the theory of operation of the transmitter, receiver, power supply, synthesizer, and control circuits. Video disc #15, covering alignment procedures of the power supply, control adapter, synthesizer, transmitter, and receiver, is not part of the curriculum but is recommended study.

**Prerequisite:** 47502, Communications Equipment (CE).

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47501

**BACK-UP EMERGENCY  
COMMUNICATIONS (BUEC)  
AIR ROUTE TRAFFIC CONTROL  
CENTER (ARTCC)**

**(40 CBI HOURS)**

This course is designed for participants responsible for the installation, evaluation, modification, maintenance, or certification of BUEC system located at the ARTCC. Subject areas include the theory of operation and adjustment procedures of the remote control group, remote link tester, and transceiver.

**Prerequisite:** 47500, Back-up Emergency Communications (BUEC) - Remote Site.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47502

**COMMUNICATIONS  
EQUIPMENT (CE)**

**(234 CBI HOURS)**

This course is designed for participants responsible for the installation, maintenance, and evaluation of CE. The course consists of six blocks of instruction covering 25 modules. Subject areas include the theory of operation of solid-state very high frequency and ultra high frequency transmitters and receivers, audio, control lines, tone channeling equipment, logs, and decibels.

**Prerequisites:** 40406, Computer Hardware Fundamentals; and 44415, Microprocessors.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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**47600**

**ELECTRICAL PRINCIPLES**

**(240 CBI HOURS)**

This course is designed for participants preparing for entry into training programs concerning maintenance of electromechanical and environmental support equipment. The course consists of theory and laboratory exercises. Subject areas include review of basic mathematics, use of test equipment, alternating current (AC) and direct current (DC) circuit theory, batteries, transformers, voltage regulators, motors, solid-state devices, and transistor amplifiers.

**Prerequisite:** 40406, Computer Hardware Fundamentals; or 44502, Foundation Mathematics.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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**47603**

**VISUAL APPROACH SLOPE  
INDICATOR (VASI)**

**(64 CBI HOURS)**

This course is designed for participants responsible for installation, maintenance, or evaluation of VASI systems. The course consists of computer-based instruction (CBI) and laboratory exercises conducted at a field facility. Subject areas include preventive and corrective maintenance on the following systems: L01-1A, FA-9330, FA-9458B, FA-9458A, FA-9458, and FA-9873.

**Prerequisite:** 47600, Electrical Principles.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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**47700**

**DISTANCE MEASURING  
EQUIPMENT (DME), FA-9783**

**(56 CBI HOURS)**

**(40 LABORATORY HOURS)\***

**\*LABORATORY TRAINING  
OFFERED AT THE FAA ACADEMY**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, and certification of DME, FA-9783. Subject areas include the theory of operation, diagnostic procedures, fault analysis, equipment adjustments, alignment/operating procedures, measurement, and analysis of system parameters.

**Prerequisite:** 40276, Common Principles for Very High Frequency Omni-directional Range (VOR)/Tactical Air Navigation (TACAN) Technicians.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47701

**SECOND GENERATION VORTAC  
HARDWARE**

**(152 CBI HOURS)**

**(56 LABORATORY HOURS)\***

**\*LABORATORY TRAINING  
OFFERED AT THE FAA ACADEMY.**

This course is designed for participants responsible for installation, evaluation, modification, maintenance, and certification of Second Generation Very High Frequency Omni-directional Range (VOR)/Tactical Air Navigation (TACAN)/Distance Measuring Equipment (DME), FA-9996. Subject areas include theory of operation, diagnostic procedures, fault analysis, equipment adjustments, alignment/operating procedures, measurements, and analysis of system parameters.

**Prerequisite:** 40276, Common Principles for Very High Frequency Omni-directional Range (VOR)/Tactical Air Navigation (TACAN) Technicians.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47702

**LOCALIZER, MARK 1D/E/F**

**(104 CBI HOURS)**

**(56 LABORATORY HOURS)\***

**\*LABORATORY TRAINING  
OFFERED AT THE FAA ACADEMY**

This course is designed for participants responsible for installation, evaluation, modification, and maintenance of Wilcox Mark 1D/E/F Localizer station. Subject areas include analysis of equipment block diagrams, schematic diagrams and signal flow, diagrams of the localizer antenna array, power supply, control unit, transmitter unit, and the system monitor. The training consists of two segments. The first is a theory of operation segment composed of 104 hours of computer-based instruction (CBI) dealing with system principles and fault analysis. The second is a laboratory segment of 56 hours which provides practical experience with operation and maintenance techniques.

**Prerequisite:** 40233, Instrument Landing System (ILS) Concepts.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47703

**GLIDE SLOPE (SHORT)**

**(32 CBI HOURS)**

**(32 LABORATORY HOURS)\***

**LABORATORY TRAINING  
OFFERED AT THE  
FAA ACADEMY**

This course is designed for participants responsible for the installation, evaluation, modification, and maintenance of Wilcox Mark 1D/E/F Null Reference Glide Slope. Subject areas include analysis of equipment block diagram signal flow, and schematic diagram of the glide slope antenna system, power supply, control unit, transmitter unit, and system monitor. The training consists of two segments. The first is a theory of operation segment composed of 32 hours of computer-based instruction (CBI) dealing with system principles and fault analysis. The second is a laboratory segment of 32 hours which provides practical experience with operation and maintenance techniques.

***Prerequisite:*** 40233, Instrument Landing System (ILS) Concepts.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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47704

**MARK 1D/E/F REMOTE  
MONITOR/LAND LINES**

**(16 CBI HOURS)**

**(8 LABORATORY HOURS)\***

**\*LABORATORY TRAINING  
OFFERED AT THE  
FAA ACADEMY**

This course is designed for participants responsible for the installation, evaluation, modification, and maintenance of Wilcox Mark 1D/E/F Remote Monitor and Status Unit. Subject areas include analysis of signal flow through the block diagram and schematic diagrams of the Remote Monitor system power supply, receiver and/or transmitter. The training consists of two segments. The first is a theory of operation segment composed of 16 hours of computer-based instruction (CBI) dealing with system principles and fault analysis. The second is a laboratory segment of 8 hours which provides practical experience with operation and maintenance techniques.

***Prerequisite:*** 40233, Instrument Landing System (ILS) Concepts.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

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**47705**

**MARK 1D/E/F ILS MARKER  
BEACON**

**(24 CBI HOURS)**

**(16 LABORATORY HOURS)\***

**\*LABORATORY EXERCISES  
PRESENTED AT THE  
FAA ACADEMY**

This course is designed for participants responsible for the installation, evaluation, modification, and maintenance of Wilcox Mark 1D/E/F Beacon Station. Subject areas include analysis of block diagrams, signal flow and schematic diagrams of the marker beacon power supply, transmitter/monitor, control unit, and antenna system. The training consists of two segments. The first is a theory of operation segment composed of 24 hours of computer-based instruction (CBI) dealing with system principles and fault analysis. The second is a laboratory segment of 16 hours which provides practical experience with operation and maintenance techniques.

***Prerequisite:*** 40233, Instrument Landing System (ILS) Concepts.

**NOTE:** There is a mandatory laboratory portion that must be completed in order to satisfy all course requirements prior to issuance of a training certificate.

# AIR TRAFFIC DIVISION

The Air Traffic Division of the FAA Academy trains the specialists who operate the U. S. control towers, en route air traffic control centers, and flight service stations.

This Division trains and screens all beginning FAA air traffic controllers in basic radar, nonradar approach control, and nonradar en route control; trains and screens beginning air traffic specialists assigned to the flight service option in meteorology and pilot weather briefing, flight plans and message notification procedures, airman information management, emergency services to aircraft in distress, and search and rescue procedures for overdue or lost aircraft.

At this time, the FAA Academy does not offer basic air traffic control training for international participants.

Advanced courses for controllers, tower managers, and other air traffic personnel, including automation specialists, are also conducted by this Division. These courses are available for international enrollments.

Special courses in facility management and in advanced air traffic control procedures have been designed for international participants. These courses are intended for air traffic personnel who have at least 3 years of air traffic control experience in their own countries.

Training courses which include radar control procedures will utilize the Academy's Radar Training Facility (RTF) containing the most advanced automated radar simulation equipment in the world. The facility features 24 automated computer-driven radar scopes that simulate air traffic operations, weather conditions, and other difficulties that might confront controllers.

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**12051**

**BASIC OBSTRUCTION  
EVALUATION AND  
AIRPORT/AIRSPACE  
ANALYSIS**

**(2 WEEKS, 3 DAYS)**

This course is designed for air traffic, aviation standards, airports, and airway facilities personnel involved in the obstruction evaluation and airport/airspace analysis programs at the Regional and Washington Headquarters level. The course consists of classroom instruction and laboratory exercises. Subject areas include application of FAR 77, Objects Affecting Navigable Airspace; criteria; evaluation of aeronautical effect; issuance of hazard/no hazard determinations; obstruction marking and lighting; FAR 157, Notice of Construction, Alterations, Activation and Deactivation of Airports; airport improvement program (AIP) airport processing; and issuance of airport airspace determinations.

***Prerequisite:*** None.

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50003

**ADVANCED AIR TRAFFIC  
CONTROL FOR  
INTERNATIONAL  
PARTICIPANTS**

**(8 WEEKS)**

**THIS COURSE IS DEDICATED  
TO INTERNATIONAL  
PARTICIPANTS.**

This course is designed for international participants employed as practicing air traffic controllers (ATC), qualified for journey-man level training, and possess a minimum of 3 years experience in the ATC field. The course consists of classroom instruction followed by laboratory exercises in both a radar and nonradar environment. Subject areas include air traffic rules, approach and departure procedures, en route procedures, radar fundamentals, primary and secondary radar, vectoring and automated equipment. U. S. procedures are taught. Course content may be customized to meet individual countries needs.

Radar training will be conducted in the Radar Training Facility (RTF). The modules used for training are identical to the equipment used by the U. S. air traffic control personnel in the daily performance of their duties.

Laboratory instruction consists of hands-on training on both automated radar terminal system (ARTS) and en route radar data processing as used in the Model A3D program. The ARTS equipment allows the capability to simulate primary radar, secondary radar, and alphanumeric presentations, allowing sequential training in radar, and alphanumeric presentations, allowing sequential training in radar systems. Model A3D program incorporates training on equipment operation and radar message composition and entry, as well as the alphanumeric data that is displayed on the plan view display (PVD) and computer readout device (CRD).

**Prerequisite:** None.

**Other Requirements:** Participant must be a high school graduate or equivalent and be able to effectively communicate in English.

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50004

**AIR TRAFFIC FACILITY  
ADMINISTRATION AND  
MANAGEMENT FOR  
INTERNATIONAL  
PARTICIPANTS**

**(3 WEEKS)**

**THIS COURSE IS DEDICATED  
TO INTERNATIONAL  
PARTICIPANTS.**

This course is designed for international participants in an air traffic control general staff or line position; or responsible for the management of an air traffic control facility; or the supervision of controller personnel. The course consists of classroom instruction, workshops, problem-solving, and case-study exercises. Subject areas include an overview of management fundamentals, air traffic service organization, planning fundamentals and practices, air traffic service facility policy statements and letters of agreement, air traffic service facility reports, utilization of personnel resources, establishing and maintaining job performance standards in air traffic control, evaluation of employee performance, interviewing, training air traffic control employees, communicating, planning and staffing, directing air traffic service employees, and air traffic service conference leadership.

**Prerequisite:** None.

**Other Requirements:** Participant must be a high school graduate or equivalent and be able to effectively communicate in English.



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50019

**AIRSPACE AND PROCEDURES**

**(3 WEEKS)**

This course is designed for airspace and procedures specialists in centers, terminals, regional offices, and Washington Headquarters. Participants must have operational experience as a full performance level air traffic control specialist, and have primary or collateral duties for the development and/or review of airspace and procedures proposals, or be assigned duties as a flight standards airspace and procedures specialist. The course consists of classroom and laboratory instruction on air traffic control documents pertaining to the airspace procedures specialists in center and terminal facilities. Participants will receive instruction on development and revision of routes policy statements (e.g., Letters of Agreement (LOA) and Letters of Procedures (LOP) etc.), air traffic procedures, military operations, review and response documents, establishment of controlled airspace, and environmental considerations.

*Prerequisite:* None.

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50113

**NATIONAL TRAFFIC  
MANAGEMENT**

**(1 WEEK)**

This course is designed for participants to learn the system-wide application of traffic management which promotes a safe, orderly, economic, and expeditious flow of air traffic. Participants observe national traffic management operations and obtain hands-on experience at the air traffic control system command center (ATCSCC). The roles played by the central altitude reservation function (CARF) and the communications center within the national airspace system (NAS) are also examined.

*Prerequisite:* None.

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50115

**TRAFFIC MANAGEMENT  
COORDINATOR SPECIALIZED  
TRAINING**

**(2 WEEKS)**

This course is designed for newly selected traffic management coordinators and supervisors, managers, staff specialists, or personnel required to perform traffic management duties at their respective facilities. The course consists of classroom and laboratory instruction. Subject areas include traffic management system/unit, work station user, traffic management associated equipment, traffic management programs and procedures required for implementation, and weather coordinator duties.

*Prerequisite:* None.

*Other Requirements:* The participant must be a full performance level air traffic controller and/or traffic management analyst.

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53021

**AUTOMATED RADAR  
TERMINAL SYSTEMS (ARTS)  
IIA FOR AUTOMATION  
SPECIALISTS, TERMINAL,  
PHASE IIA**

**(10 WEEKS, 1 DAY)**

This course is designed for ARTS IIA automation specialists. The course consists of classroom instruction, workshops, and subject area laboratory exercises. Subject areas include loading, and initialization and verification of the operational program, Omega assembly programming, site-specific adaptation and modification, system support software operation, as well as program error detection and corrective actions. Program maintenance and documentation are also covered.

**Prerequisite:** 54003, Automation Specialist Course, Terminal.

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53022

**ADA COMPUTER LANGUAGE -  
EXECUTIVE OVERVIEW**

**(3 DAYS)**

This course is designed for managerial, supervisory, and staff specialists with a need for background information of the relationship between the ADA and the air traffic system. Subject areas include the development of the ADA language, and ADA software capabilities and limitations.

**Prerequisite:** None.

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53023

**INTRODUCTION TO ADA**

**(4 WEEKS)**

This course is designed for automation managers, staff specialists, and computer analysts who have the responsibility to review ADA language programs. The course is an introduction and overview to the ADA computer language and ADA programming support environment. Subject areas include software terminology of the ADA language, ADA language syntax for basic programming, and basic ADA programming conventions and techniques. The course consists of classroom instruction with both written and laboratory exercises. The participant will be required to write executable programs using the ADA language. Written examinations and a performance evaluation will be given at the end of the course.

**Prerequisite:** None.

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53024

**ADVANCED ADA  
PROGRAMING**

**(4 WEEKS)**

This course is designed for automation specialists, computer analysts and others with a need for detailed information about the more advanced conventions and programming tools used in ADA. The course will stress the use of software optimization and software data types, tasks, packages, generic units, and exception handlers. Subject areas include use of ADA data types, tasks, packages, generic units, and exception handlers. The course consists of classroom instruction with both written and laboratory exercises. The participant will be required to write executable programs using the advanced conventions and programming tools of ADA. Written examinations and a performance evaluation will be given at the end of the course.

**Prerequisite:** 53023, Introduction to ADA.

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**53025**

**AUTOMATED RADAR  
TERMINAL SYSTEMS  
(ARTS IIIA FOR AUTOMATION  
SPECIALISTS)**

**(16 WEEKS)**

This course is designed for automation specialists responsible for the operation and program maintenance of the ARTS IIIA/E system. The course consists of classroom instruction in the operation and programming of the ARTS IIIA system and specific ARTS IIIE portions and programming, laboratory exercises, troubleshooting, and debugging procedures. Performance will be measured by written examinations for the academic instructions and by successful completion and operation of assigned computer programs.

*Prerequisite:* None.

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**53026**

**THE C PROGRAMMING  
LANGUAGE**

**(5 WEEKS)**

This course is designed for automation managers, specialists, computer analysts, and other personnel responsible for reviewing and writing C language programs. The course is an introduction to the C programming language. Subject areas include C language syntax for Basic C programming and C programming conventions and techniques. The course consists of classroom instruction with both written and laboratory exercises. The participant will be required to write executable programs in the C language. Written examinations will be given throughout the course.

*Prerequisite:* None.



# AVIATION SECURITY TRAINING DIVISION

The Aviation Security Training Division conducts training in civil aviation security in response to needs of the FAA, the U.S. Department of Transportation (DOT), and the U.S. Department of State (DOS), Anti-terrorism Assistance Program (ATAP). Application for attendance by international participants must be made through their governments to their respective U.S. Embassy. Training is conducted to further the professionalism of FAA special agents and aviation security inspectors, as well as for the aviation industry in the form of resident and non-resident courses and seminars. The Division also conducts training in the air transportation of hazardous materials.

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**70012**

**CIVIL AVIATION SECURITY  
TRAINING**

**(4 1/2 DAYS)**

This course is designed for security personnel, or law enforcement officials with either airport law enforcement or security responsibilities. Subject areas include how to use passenger-screening techniques, including the use of metal detectors; regulations and procedures for search of baggage and passengers; legal rights and obligations of security police as well as passengers; how to conduct airport surveys and how to implement programs to correct deficiencies; the use of security devices of all types; specialized indoctrination on critical areas of airports; aviation explosives security; and public relations.

**Prerequisite:** Applicants must be aviation industry or law enforcement officials with responsibility for airport law enforcement or aviation security.

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**70013**

**CIVIL AVIATION SECURITY  
TRAINING  
(INTERNATIONAL)**

**(1 WEEK, 4 DAYS)**

**THIS COURSE IS DEDICATED  
TO INTERNATIONAL  
PARTICIPANTS.**

This course is designed for security personnel, law enforcement officials, and managers having civil aviation security responsibilities in the international sector. Classes number a maximum of 24 participants from a variety of civil aviation backgrounds and countries. The course is designed to acquaint the participant with applicable U. S./FAA regulations, and the relationships of these regulations to international airport operations. Subject areas include the International Civil Aviation Organization (ICAO) conventions, regulations and updates; airport security procedures; air carrier, ground security; research and development; passenger/baggage screening techniques; aviation explosives, and others. A crisis management exercise is held during the course.

**Prerequisite:** Applicants must be aviation industry or law enforcement officials with responsibility for airport law enforcement or aviation security. Applicants must be fluent in the English language. Open to international participants only.

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**70101**

**AIR TRANSPORTATION OF  
HAZARDOUS MATERIALS  
(BASIC)**

**(1 WEEK, 4 DAYS)**

This course is designed to provide in-depth training (oriented to the governing regulations) concerning the air transportation of hazardous materials. Participants should be aviation security personnel or inspectors in field facilities having responsibility for the regulation of air transportation of hazardous materials. The curriculum emphasizes problems in obtaining information from basic shipping documents, package inspection, carrier operations practices, and application of the rules to simulated job-site conditions.

***Prerequisite:*** None.

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**70106**

**AIR TRANSPORTATION OF  
HAZARDOUS MATERIALS,  
(RECURRENT)**

**(1 WEEK)**

This course is designed to provide recurrent training related to FAA's responsibilities for the regulations of the air transportation of hazardous materials. The subject areas include the DOT hazardous materials organization, inspection and enforcement, exemptions, air packaging requirements, and International Civil Aviation Organization (ICAO) technical instructions for the safe transport of dangerous goods.

***Prerequisites:*** 00101, Air Transportation of Hazardous Materials (Basic), and 1 year field experience.

# FAA ACADEMY

## CORRESPONDENCE STUDY COURSES

The Federal Aviation Administration's (FAA) correspondence study courses are administered by the FAA Academy. This training is provided to participants by the Academy's automated Educational Data Processing System (EDPS). This system accepts enrollments, processes lessons, provides feedback for questions missed, computes grades, issues training notices, prepares training records, and prepares certificates of training for participants.

Study material is mailed with lessons to be completed and returned to the FAA Academy by the participant as an indication of progress and achievement. Answer sheets and envelopes are provided.

Questions and comments are encouraged and receive the attention of an instructor. A certificate is awarded only upon satisfactory completion of each course. A report of completion is provided for inclusion in training records. Complete information on procedures and rules is contained in the initial enrollment packet of materials.

A few correspondence study courses contain material for independent study but do not contain lessons to be returned to the Academy for grading. *These courses are offered for information only. No certificate will be issued for completion.*

## ENROLLMENT IN

## CORRESPONDENCE STUDY COURSES

Personnel of foreign countries may enroll in correspondence study courses as FAA Academy resources permit.

Application for enrollment in correspondence study courses should be made on application form, AC Form 3145-38. A copy of this form is included on the last page of this catalog for your use. We suggest that copies be made of the form if more than one enrollment is anticipated.

Applications for courses by letter or memorandum will be accepted; however, the proper form, which is included with the initial materials, must be completed in accordance with the outlined procedures and returned prior to lesson submission.

**Information Required:** The participant, as part of the request for enrollment in correspondence study courses, must furnish a complete home mailing address, the name of his supervisor, and an office or work address. Any change in this information must be sent to the FAA, immediately, at the following address to insure prompt and accurate handling of the course material. All requests for enrollment and/or changes for international participants must be sent to the following address:

Federal Aviation Administration  
International Assistance Division  
Office of International Aviation  
800 Independence Avenue, SW.  
Washington, DC 20591

## **MANAGEMENT TRAINING CORRESPONDENCE STUDY COURSES**

Management courses are tailored specifically to the needs of FAA supervisors and managers. The philosophy of management imparted is such that it may or may not be of value to international participants. Further, some of these courses deal with agency and/or federal directives which may limit the value of such programs to representatives of other nations.

## **TECHNICAL TRAINING CORRESPONDENCE STUDY COURSES**

Technical courses deal with the maintenance and installation of equipment utilized by the FAA in our national airspace system. The correspondence study materials/courses have general applicability for both FAA personnel and international participants.

Some courses are designed to provide fundamental knowledge in principles and theory of such things as communications equipment, basic electronics, and radar.

Many courses deal with specific kinds of equipment utilized by the FAA and would have applicability to international participants who would be required to work on the same equipment in their own country.



# MANAGEMENT TRAINING COURSES

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14000

**CONFERENCE  
TECHNIQUES IN EVERYDAY  
MANAGEMENT**

**(48 HOURS)**

This course is designed for personnel with a potential for growth in the realm of management/supervision. The course consists of 1 lesson to be completed in approximately 15 weeks. The course includes: aspects of motivation and communication, group dynamics, preparing for and conducting a conference, and brainstorming as a problem-solving activity.

*Prerequisite:* None.

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14001

**A POSITIVE APPROACH  
TO DISCIPLINE**

**(48 HOURS)**

This course is designed for personnel whose background indicates good potential for growth in the realm of management/supervision. The course consists of 5 lessons to be completed in approximately 15 weeks. The participants are provided with an introduction to the role of the supervisor in building positive attitudes within the agency; human relations and creative discipline are stressed.

*Prerequisite:* None.

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14002

**FUNDAMENTALS  
OF SUPERVISION**

**(150 HOURS)**

This course is designed for supervisors, staff personnel, and those demonstrating supervisory potential. The course consists of 15 lessons to be completed in approximately 12 to 15 months. The course includes: supervisory responsibilities, leadership, cooperation, selecting and assigning employees, determining training needs, conducting training, planning, organizing, communicating and directing, discipline, production and control, safety, public relations, incentive awards, and the FAA directives system.

*Prerequisite:* None.

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14003

**HUMAN RELATIONS  
IN SUPERVISION**

**(48 HOURS)**

This course is designed for participants with a background indicating good potential for growth in the realm of management/supervision. The course consists of 6 lessons to be completed in approximately 15 weeks. The participants are provided with a knowledge on attitudes and behavior, individual differences, morale and motivation, and communicating skills.

*Prerequisite:* None.

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14006

**EFFECTIVE ORGANIZATION  
OF WORK**

**(48 HOURS)**

This course is designed for participants whose background indicates good potential for growth in the realm of management/supervision. The course consists of 5 lessons to be completed in approximately 15 weeks. The participants are provided with a background in the analysis of work, personnel, and organizational effectiveness. The course also examines organizational structure, the use of time, and communications.

*Prerequisite:* None.

<b>14010</b>  <b>BRIEFING AND PRESENTATION TECHNIQUES</b>  <b>(48 HOURS)</b>	<p>This course is designed for managers, staff personnel, and employees responsible for conducting briefings or orientations, and for all participants who need to improve their oral communication skills. The course consists of 5 lessons to be completed in approximately 18 weeks. The course includes: elements of the briefing process, determining objectives of a briefing, analyzing the audience, selection and use of training aids, proper delivery techniques, practice and revision of delivery, and making arrangements for the briefing.</p> <p><i>Prerequisite:</i> None.</p>
<b>14014</b>  <b>WRITING IMPROVEMENT</b>  <b>(32 HOURS)</b>	<p>This course deals with the fundamentals of writing improvement. Subject areas include arrangement of ideas and facts; writing sentences; writing paragraphs; using standard English in writing letters; avoiding complexity, pomposity, and abstraction; writing letters; and organizing and writing informal reports. The course consists of 5 lessons.</p> <p><i>Prerequisite:</i> None.</p>
<b>14018</b>  <b>ON-THE-JOB TRAINING (OJT) TECHNIQUES</b>  <b>(32 HOURS)</b>	<p>This course is designed for OJT trainers and supervisors responsible for planning and conducting training on-the-job. The course consists of 7 lessons. Subject areas include the role of OJT, training needs and objectives, OJT methods and techniques, training aids and instructional materials, learning and communicating, planning and conducting OJT, appraisal of training progress, and OJT records and reports.</p> <p><i>Prerequisite:</i> None.</p>
<b>14019</b>  <b>STAFF SPECIALIST</b>  <b>(48 HOURS)</b>	<p>This course is designed for participants responsible for performing, or desire to qualify for, staff specialist work. The course consists of 4 lessons to be completed in approximately 15 weeks. The participants are provided with knowledge essential to performance of completed staff work with emphasis on staff studies.</p> <p><i>Prerequisite:</i> None.</p>
<b>14022</b>  <b>PRINCIPLES OF INSTRUCTION</b>  <b>(36 HOURS)</b>	<p>This course is designed to provide a basic understanding of what is required to be an effective instructor. Subject areas include the qualities of a good instructor, the basic instructional methods, and the kinds of behavior that cause learning to take place. The course consists of 7 chapters and 1 lesson.</p> <p><i>Prerequisite:</i> None.</p>

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14027

**REPORT ANALYSIS  
AND CONSOLIDATION**

**(40 HOURS)**

This course is open to participants at all levels but the majority of participants will be in staff functions or those who wish to enter staff or managerial positions. At the conclusion of training the participant should be able to state the various purposes of reports and select the appropriate format for each of the major types of reports. The participant will learn how to organize data to be presented in an orderly fashion and how to support the conclusions of the report. Subject areas include how to interpret common data presentation formats (graphs, charts, tables, etc.) and how to detect common errors in the interpretation of report results. The participant will be shown how to consolidate the results of several related reports and to draw reasonable conclusions where justified and to recognize situations where results cannot be compared due to differences in the way the work was carried out or in the way the information about the work was collected. The course consists of 4 lessons.

*Prerequisite:* None.

# TECHNICAL TRAINING COURSES

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24008

**BASIC AIRCRAFT  
ELECTRICAL FUNDAMENTALS**

(80 HOURS)

This course is designed for aircraft maintenance technicians who are responsible for troubleshooting complex aircraft electrical systems. Subject areas include basic electrical theory, magnetism, Ohm's Law, capacitance, inductance, alternators, generators, solid-state devices, circuits, measurements, and troubleshooting techniques.

*Prerequisite:* None.

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44006

**BASIC MULTICHANNEL  
RECORDED THEORY**

(40 HOURS)

This is a progressive study on the subject of basic multichannel recorder theory. Subject areas include magnetic recording theory, magnetic record, reproduce, erase head theory, digital recording techniques, tape recorder drive systems, and tape transport systems.

*Prerequisite:* 40406, Computer Hardware Fundamentals.

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44012

**FUNDAMENTALS OF DATA  
COMMUNICATION**

(40 HOURS)

This course is designed for electronics and/or computer technicians typically in maintenance positions. The course provides an introduction and analysis of data communications for technicians and engineers. Subject areas include communications concepts, hardware equipment, and maintenance. The course provides the required entry-level knowledge and skills for dealing with data communications disciplines as they are encountered in future airway facilities training. Entry-level knowledge should include number systems, solid-state devices, digital logic, and microprocessors.

*Prerequisite:* 47003, Electronics for FAA Technical Personnel.

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44100

**ENGINES**

(80 HOURS)

This is a basic course on internal combustion engines. Subject areas include gasoline and diesel engines, valve systems, carburetion, ignition, cooling, lubrication, fuels, combustion, engine auxiliaries, and control panels.

*Prerequisite:* None.

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44102

**DIESEL ENGINE  
GENERATORS**

(45 HOURS)

This course presents a study of basic principles, concepts, terminology, and definitions of diesel engine generators and associated control panels. Subject areas include basic diesel engine operation, fuel systems, governors, and control panels.

*Prerequisite:* None.

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44106

**AIR CONDITIONING**

(30 HOURS)

This course provides an introduction to air conditioning principles. Subject areas include heat, temperature, pressure, air, the basic refrigeration system, and the basic air conditioning system.

*Prerequisite:* None.

<b>44208</b>  <b>RUNWAY VISUAL RANGE (RVR) EQUIPMENT (FA-7861)</b>  <b>(40 HOURS)</b>	<p>This course presents RVR concepts applicable to the transmissometer and to the RVR computer of FA-7861. Subject areas include the areas of the transmissometer transmitter and receiver, signal data converter, and printed circuit boards (PCB) essential to the operation of the RVR system. There are 2 lessons.</p> <p><i><b>Prerequisite:</b></i> 47000, Common Principles - Basic; or 40509, Common Principles for Electronic Technicians; or 40511, Common Principles for Electrical Engineering Technicians.</p>
<b>44215</b>  <b>DISTANCE MEASURING EQUIPMENT (DME) PRINCIPLES</b>  <b>(24 HOURS)</b>	<p>The subject areas include DME concepts, terminology, theory of operation, familiarization of the various units of the DME system consisting of the transponder, monitor, test unit, and the control unit. Also, an analysis of the system functional block diagram is presented.</p> <p><i><b>Prerequisite:</b></i> 47000, Common Principles - Basic; or 40509, Common Principles for Electronic Technicians.</p>
<b>44217</b>  <b>DIRECTION FINDER (DF) 5530 AND DIRECTION FINDER REMOTING EQUIPMENT (RDF) 5571/5572</b>  <b>(40 HOURS)</b>	<p>This course is designed for participants responsible for evaluation and maintenance of 5530 DF and 5571/5572 RDF. Subject areas for the DF equipment include Doppler theory, antenna system, receiver, data extractor, local and remote indicators, time domain filter, bearing evaluator monitor, and air ground adapter. Subject areas for the RDF equipment include FSK theory and control and data systems. A basic understanding of vacuum tubes and transistor operations is helpful. The course consists of 7 lessons.</p> <p><i><b>Prerequisite:</b></i> None.</p>
<b>44415</b>  <b>MICROPROCESSORS</b>  <b>(120 HOURS)</b>  <b>INTERNATIONAL PARTICIPANTS MAY ENROLL ONLY AS A PREREQUISITE FOR RESIDENT TRAINING.</b>	<p>This course is designed for participants responsible for maintaining electronic systems which include the use of a microprocessor. Subject areas include microprocessor basics, computer arithmetic, programming, and interfacing techniques. A programmable microprocessor trainer is available for use with this course. Approximately one-third of the completion time is devoted to practical experiments that are designed to reinforce each lesson. The designated offices assigned responsibility for the trainer will schedule their use to meet local training needs. Use of the trainer is optional.</p> <p><i><b>Prerequisite:</b></i> 44416, Digital Techniques.</p>

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44416

**DIGITAL TECHNIQUES**

**(60 HOURS)**

**INTERNATIONAL  
PARTICIPANTS MAY ENROLL  
ONLY AS A PREREQUISITE  
FOR RESIDENT TRAINING.**

This course is designed for participants responsible for installation, maintenance, and evaluation of electronic equipment. The course is designed in conjunction with a digital trainer. Each lesson is reinforced by one or more related experiments for a total of 24 experiments and 10 lessons. Subject areas include digital logic fundamentals and theory, digital circuits, digital integrated circuits, Boolean algebra, flip-flop, registers, sequential circuits, combinational logic circuitry, and digital design. The designated offices assigned responsibility for the trainers will schedule their use to meet local training needs. Use of the trainer is optional.

***Prerequisite:*** None.

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44417

**SEMICONDUCTOR DEVICES**

**(60 HOURS)**

**INTERNATIONAL  
PARTICIPANTS MAY ENROLL  
ONLY AS A PREREQUISITE FOR  
RESIDENT TRAINING.**

This course is designed for personnel responsible for installation, maintenance, and evaluation of solid-state equipment. Subject areas include semiconductor fundamentals, diodes, zeners, bipolar transistor operation and characteristics, field effect transistors (FET), thyristors, integrated circuits (IC) and opto-electronics. Included are tests, cassette tapes, and 27 electronic components for 11 different experiments. The course consists of 10 lessons. The designated offices assigned responsibility for the trainer kits will schedule their use to meet local training needs. Use of the trainer is optional.

***Prerequisites:*** 44504, Electronic Fundamentals and Engineering Mathematics; and 44502, Foundation Mathematics.

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44419

**FUNDAMENTALS OF COMPUTER  
SOFTWARE**

**(80 HOURS)**

**INTERNATIONAL  
PARTICIPANTS MAY ENROLL  
ONLY AS A PREREQUISITE  
FOR RESIDENT TRAINING.**

This course provides the required entry-level knowledge and skills for dealing with software disciplines as they are encountered in airway facilities training. The course addresses the full range of computers and their processing concepts. The basic concepts of information processing and the evolution of the computer industry are presented. Subject areas include data structures, relationships, flow in both interactive and batch processing systems, input/output processing, user interfaces, and data storage devices. A study of software management type, languages, design, coding, and implementation are preliminary to programming exercises using the basic language.

***Prerequisite:*** 40406, Computer Hardware Fundamentals.

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44428

**HOST COMPUTER SYSTEM (HCS)  
OVERVIEW**

**(19 HOURS)**

This course is designed for software, hardware, operations, management, and training participants. The course consists of 3 modules designed to instruct in the major hardware characteristics, fundamental National Airspace System (NAS) software modifications, logistics, and installers requirements of the HCS.

***Prerequisite:*** None.

44502	<p>This course is a study of mathematics and its application in the field of electronic technology. Subject areas include arithmetic application, fractions, exponents, radicals, equations, monomials, polynomials, angles, areas, volumes, graphs, logarithm and trigonometric tables, Ohm's Law, and simple alternating current (AC) and direct current (DC) circuit problems. The course consists of 12 lessons.</p>
FOUNDATION MATHEMATICS	<i>Prerequisite:</i> None.
(150 HOURS)	
44504	<p>This course is a study of engineering mathematics and electronic principles. Subject areas include algebraic operations, logarithms, decibels, determinants, trigonometry, identities, graphs, polar coordinates, Ohm's Law, Thevenin's and Norton's theorems, alternating current (AC) and direct current (DC) circuits, vector algebra, and network analysis. The course consists of 12 lessons.</p>
ELECTRONIC FUNDAMENTALS AND ENGINEERING MATHEMATICS	<i>Prerequisite:</i> 44502, Foundation Mathematics.
(280 HOURS)	
44511	<p>This course is designed for entry level technicians. The course consists of 6 units. Subject areas include theory and application of analog and digital meters, oscilloscopes, frequency generation, frequency measurements, and special measuring instruments. The course shows how to use a wide variety of test equipment with a look into their operation and practical application. This course replaces Course 44500, Test and Measurement.</p>
ELECTRONIC TEST EQUIPMENT	<i>Prerequisite:</i> 44419, Fundamentals of Computer Software; or 47402, Fundamentals of Computer Software.
(85 HOURS)	
INTERNATIONAL PARTICIPANTS MAY ENROLL ONLY AS A PREREQUISITE FOR RESIDENT TRAINING.	
44715	<p>This study material covers a wide range of ILS principles, including components of a complete ILS, waveforms peculiar to the ILS, and amplitude modulation. The course prepares the participant for PVE-1100 (prerequisite validation examination) which is a prerequisite for Course 40233, Instrument Landing System (ILS) Concepts, if the participant has not completed course 40509, Common Principles for Electronics Technicians. The written examination takes 2 1/2 hours and must be taken at the FAA Academy.</p>
STUDY MATERIAL FOR INSTRUMENT LANDING SYSTEM (ILS) BASIC THEORY/PVE-1100	<i>Prerequisite:</i> None.
INTERNATIONAL PARTICIPANTS MAY ENROLL ONLY AS A PREREQUISITE FOR RESIDENT TRAINING.	
54003	<p>This course is designed for air traffic control specialists preparing to enter air traffic automation. The course consists of 5 lessons. Subject areas include computer history, types of computers, numbering systems, flow charting, computer systems, processing and input/output devices. Training provided will acquaint the specialist with air traffic automation.</p>
AUTOMATION SPECIALIST COURSE, TERMINAL	<i>Prerequisite:</i> None.
(40 HOURS)	





## **DEDICATED INTERNATIONAL COURSES**

<b>COURSE</b>	<b>TITLE</b>	<b>PAGE</b>
06032	Airport Management for International Participants	12
10502	International Instructor Training	13
20724	Airspace Systems Inspection Pilot (Basic) Nonflying	18
20725	Airspace Systems Inspection Technician (Basic) Nonflying	18
21615	Instrument En Route and Approach Development - International	20
50003	Advanced Air Traffic Control for International Participants	54
50004	Air Traffic Facility Administration and Management for International Participants	54
70013	Civil Aviation Security Training (International)	59



**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION  
CORRESPONDENCE STUDY ENROLLMENT APPLICATION  
FOR INTERNATIONALS**

INSTRUCTIONS: Use this form for enrolling in Correspondence Study courses. It will serve as a source document for the Correspondence Study automatic data processing system. Therefore, please print all information. In the blocks which are subdivided by short marks, the first character of information should occupy the left most subdivision.

Please fill in all information requested in the white areas. Do not mark in the shaded areas.

Attention is now directed to the bottom section below the dotted line. This serves as a label for mailing your Correspondence Study materials. Avoid unnecessary

delays in your study plans by making certain this label is filled out correctly. After you have completed the application, mail with check drawn on U.S. bank or International Money Order made out for correct amount in United States dollars to:

Federal Aviation Administration  
International Aviation Administration  
AIA – 200  
800 Independence Avenue, S.W.  
Washington, D.C. 20591

(1) SOCIAL SECURITY NO. <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(2) COURSE NO. <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(3) COURSE TITLE <div style="border-bottom: 1px solid black; height: 1.2em;"></div>
(4) <input type="checkbox"/> MR. <input type="checkbox"/> MRS. <input type="checkbox"/> MISS		(5) NAME (Last, First, Middle) <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	
(7) MAILING ADDRESS <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			
(8) CITY <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(9) STATE <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(10) ZIP CODE <div style="border-bottom: 1px solid black; height: 1.2em;"></div>
(11) ROUTING SYMBOL <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(12) FOREIGN COUNTRY <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(13) GRADE/RNK. <div style="border-bottom: 1px solid black; height: 1.2em;"></div>
(14) SIGNATURE OF APPLICANT <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(17) REGION (Example – Eastern – EA) <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(18) NON-FAA <div style="border-bottom: 1px solid black; height: 1.2em;"></div>
(15) POSITION AND TITLE <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			
(16) EMPLOYER OR SPONSOR IF OTHER THAN FAA <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			
(19) STATION OR OFFICE NAME <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(25) THIS COURSE IS REQUESTED AS: <input type="checkbox"/> As prerequisite for additional training <input type="checkbox"/> As part of an integrated program <input type="checkbox"/> A training requirement <input type="checkbox"/> Career development	
(20) STREET ADDRESS <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			
(21) CITY <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(22) COUNTRY <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		
(23) SIGNATURE OF APPROVING SUPERVISOR <div style="border-bottom: 1px solid black; height: 1.2em;"></div>		(24) DATE <div style="border-bottom: 1px solid black; height: 1.2em;"></div>	(26) JUSTIFICATION (For Courses Not Job Related) <div style="border-bottom: 1px solid black; height: 1.2em;"></div>
(27) APPROVING OFFICIAL (FAA Academy) <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			
(28) <div style="border-bottom: 1px solid black; height: 1.2em;"></div>			

AC Form 3145-38

**Course Material – MAILING LABEL**

AIRMAIL

Course No. \_\_\_\_\_

TO: \_\_\_\_\_

COUNTRY \_\_\_\_\_

Cut along dotted line.



**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION  
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(1) SOCIAL SECURITY NO.		(2) COURSE NO.	(3) COURSE TITLE
A			
(4) <input type="checkbox"/> MR. <input type="checkbox"/> MRS. <input type="checkbox"/> MISS	(5) NAME (Last, First, Middle)		(6) SERVICE (Check One Box)
			<input type="checkbox"/> AIRWAY FACILITIES
			<input type="checkbox"/> AIR TRAFFIC
			<input type="checkbox"/> FLIGHT STANDARDS
			<input type="checkbox"/> LOGISTICS
			<input type="checkbox"/> SYSTEMS MAINTENANCE
			<input type="checkbox"/> OTHER (Specify)
(7) MAILING ADDRESS	(8) CITY	(9) STATE	(10) ZIP CODE
(11) ROUTING SYMBOL	(12) FOREIGN COUNTRY	(13) GRADE/RNK.	FOR FAA ACADEMY USE ONLY
			SERVICE NON-FAA
			<input type="checkbox"/> <input type="checkbox"/>
(14) SIGNATURE OF APPLICANT	(15) POSITION AND TITLE	(17) REGION (Example – Eastern – EA)	(18) NON-FAA
		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
(16) EMPLOYER OR SPONSOR IF OTHER THAN FAA			COURSE MATERIAL ISSUED FINAL EXAM. REQUIRED
			<input type="checkbox"/> <input type="checkbox"/>
			ENROLLMENT TYPE
			<input type="checkbox"/> PREREQ. <input type="checkbox"/> RMU <input type="checkbox"/> REIMB.
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(28)			

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**Course Material – MAILING LABEL**

**AIRMAIL**

Course No. \_\_\_\_\_

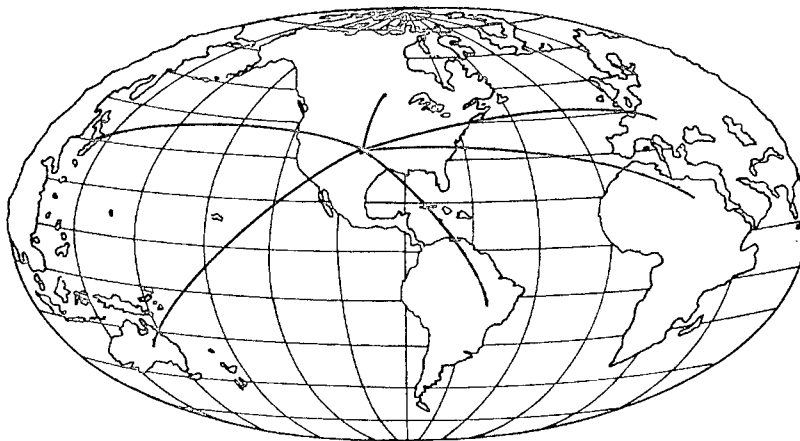
TO: \_\_\_\_\_

COUNTRY \_\_\_\_\_

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